

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Meeting 32, 8-9 December 2015**

**MINUTES
Regus, Canberra**

Attendance and Apologies

IN ATTENDANCE

Dr Andrew Johnson (Chair)
Dr Andrew Boulton
Professor Craig Simmons
Dr Jenny Stauber
Emeritus Professor Peter Flood
Ms Jane Coram

APOLOGIES

Dr Andrew Johnson (8 December)

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

Dr Diana Wright (Item 3) First Assistant Secretary Science Division	Ben Roudnew (Item 2) Office of Water Science
Anthony Swirepik (Item 3) Office of Water Science	Emily Turner (Item 2) Office of Water Science
Geraldine Cusack (Item 3) Office of Water Science	Emma Wiadrowski (Item 2) Office of Water Science
Craig Watson (Item 3) Office of Water Science	Mitchell Bouma (Item 2) Office of Water Science
John Higgins (Item 4) Office of Water Science	Rod Dann (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 4) Office of Water Science	Peter Baker (Item 3) Office of Water Science
Kerry Olsson (Item 3) Office of Water Science	Craig Moore (Item 2) Office of Water Science

INVITED GUESTS

Bronwyn Ray (Item 3) Bureau of Meteorology	Elaine Prideaux (Item 3) Bureau of Meteorology
David Post (Item 3) CSIRO	Louise Minty (Item 3) Bureau of Meteorology
Stuart Minchin (Item 3) Geoscience Australia	Paul Sheahan (Item 3) Bureau of Meteorology
Paul Hardisty CSIRO	Brent Henderson CSIRO

The meeting commenced at 12.30 pm on 8 December 2015.

1. Welcome and Introductions

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

Apologies were received from Dr Andrew Johnson for 8 December.

1.1 Acknowledgement of country

The Acting 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 32.

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

- minutes of the IESC's thirty first meeting (11-13 November 2015) were confirmed and agreed for publication; and
- advice on the Bylong Coal 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 30 November 2015. The IESC agreed that a report on visits to the IESC website provided quarterly would be beneficial.

1.7 Environmental scan

The Office of Water Science provided an update on developments since the November 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 Victorian Parliamentary Inquiry into Onshore Unconventional Gas in Victoria; and
- the Western Australian Parliamentary Inquiry into the Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas.

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 10-11 February 2016.

2. **Advice on projects referred by governments**

2.1 Advice on Hail Creek Project – Expansion

The IESC received a request for advice from the Australian Government Department of the Environment to provide advice on Rio Tinto's Hail Creek Coal Mine Extension Transition project in Queensland.

The Hail Creek Coal Mine Extension Transition project is an extension to the existing Hail Creek mine, located 120 kilometres south-west of Mackay. The proposed project will expand the existing open cut mining activities and transition to an underground mining operation. The proposed project will extend operation to 2048 and will not alter the currently approved rate of production: 20 million tonnes per annum run of mine coal.

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

- the conceptualisation of the groundwater model;
- the potential drawdown in the alluvial aquifers and resultant impacts to groundwater-dependent ecosystems;
- potential impacts to Hail Creek and the underground mine due to subsidence;
- surface water quality and monitoring; and
- potential impacts to the Brumby Waterhole.

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.

2.2 Advice on New Acland Project - Expansion

The IESC received a request for advice from the Australian Government Department of the Environment to provide advice on New Acland Coal Mine Stage 3 project in Queensland.

The New Acland Coal Mine Stage 3 project is located approximately 35 kilometres northwest of Toowoomba in the Lagoon Creek Catchment of the Clarence-Moreton Basin. The proposed project involves creation of three open cut pits to increase production of thermal product coal from the Walloon Coal Measures from 4.8 Mtpa to 7.5 Mtpa for 12 years.

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

- groundwater modelling;
- surface water quality data and monitoring; and
- identification of vegetation groundwater dependent ecosystems.

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.

2.3 Advice on Curragh Extension Project - Expansion

The IESC received a request for advice from the Australian Government Department of the Environment to provide advice on Wesfarmers' Curragh Extension project in Queensland.

The Curragh Extension Project is an expansion of an existing open cut coal mine, located approximately six kilometres north of Blackwater. The proposed project will extend the life of the current mine for a further eight years at current production rates of 18 million tonnes per annum of run of mine coal, from the Rangal Coal Measures of the Bowen Basin.

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

- the evidence to support the approach to groundwater modelling;
- the need to assess cumulative impacts; and
- impacts to surface water resources and groundwater dependent ecosystems, including turtle species listed under the EPBC Act.

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.

3. Bioregional Assessments

3.1 Bioregional Assessments – Update

The IESC noted the update.

The IESC welcomed advice that the Bioregional Assessment Implementation Board has agreed that the re-scope of the Bioregional Assessment Programme will include receptor impact modelling for the Namoi and Hunter subregions, resulting in the four highest priority regions (Namoi, Hunter, Galilee and Gloucester) having full assessments.

In response to the IESC comments on submethodologies at Meeting 30, the Bioregional Assessment Programme has included funding to develop an 'operational BRAM', an end-to-end example of how the methodology is applied to an assessment.

A verbal update was provided on the progress being made on implementing the enhanced quality assurance processes. The IESC commented on the importance of vertical integration through an individual assessment, suggesting that this should be a focus for reviewers as the Programme is finalising assessments. The IESC accepted the Group 2 independent peer review processes.

3.2 Presentation on Bioregional Assessments Information Platform

Mr Paul Sheahan from the Bureau of Meteorology demonstrated the Bioregional Assessment Information Platform to the IESC. The Platform will go live in March 2016.

The IESC discussed how to successfully manage the range of users, and the need for quality communications material as an entree to the highly technical products. There was also a discussion on the longevity of the Information Platform and the current funding until June 2018.

The IESC have a high interest in the Explorer function currently being developed to visualise assessment results on the Platform, and they will continue to work with the Programme to guide development over the coming months. The Chair thanked Mr Sheahan for a very interesting presentation.

3.3 Presentation on Bioregional Assessments Communications

Dr David Post from the CSIRO presented to the IESC the plain English guide to Bioregional Assessments.

The IESC discussed the need to clearly communicate that the Programme is primarily assessing volumetric hydrological responses with minimal assessment of water quality. Discussion also focussed on how the Programme is combining multiple stressors on assets to provide a cumulative risk analysis. This will be a key focus for the Programme as it moves through the impact analysis and finalises sub-methodologies 8 and 10. OWS will work with the IESC and the Programme to develop an agenda for the March 'deep dive' to provide a detailed dialogue on key components of the assessment.

The Chair thanked Dr Post for a very good presentation.

4. Research

4.1 Research Programme Update

The IESC noted the 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; 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.

The IESC was updated on a recent workshop with the Ecology Project Team that considered integration and inferential strength of project findings.

An update was provided on the National Assessment of Chemicals Used in Coal Seam Gas Extraction, including development of the communications strategy. IESC members were advised that they will have an opportunity to provide comments on key documents out of session.

4.2 Research Priorities

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

The IESC requested that the identified priorities be ranked against the five guiding principles and that a desktop audit is done to ensure that the research hasn't been done elsewhere.

A discussion paper is to be presented at the next IESC Meeting.

5. **Other Business**

5.1 Efficiency and Effectiveness

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

Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

Next Meeting

The next meeting is scheduled for 10-11 February 2016 in Canberra.

The meeting closed at 4.45pm on Wednesday 9 December.

Minutes confirmed as true and correct:

Dr Andrew Johnson

IESC Chair

December 2015

Item(s)	IESC member	Disclosure	Determination
4	Professor Craig Simmons	I consider that there may be a possible conflict of interest in relation to Agenda Item 4 (Research) arising from NCGRT as a potential/current provider of research.	No actual, potential or perceived conflict of interest exists and Professor Simmons participated fully in the IESC meeting.
2.1 and 2.3	Jenny Stauber	I consider that there may be a possible conflict of interest in relation to Agenda Item 2.1 and 2.3 arising from family investment in shares.	An actual, potential or perceived conflict of interest exists and Jenny Stauber was excluded from decision of agenda items 2.1 and 2.3. Participation was limited to expert advice only/ discussion and consideration only for agenda items 2.1 and 2.3.
2.3	Peter Flood	I consider that there may be a possible conflict of interest in relation to Agenda Item 2.3 arising from family investment in shares.	An actual, potential or perceived conflict of interest exists and Peter Flood was excluded from decision of agenda item 2.3. Participation was limited to expert advice only/ discussion and consideration only for agenda item 2.3.