**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

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| 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

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| 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**

* 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.

* 1. 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.

* 1. 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

Attachment A

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| **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. |