

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Minutes – Meeting 27, 9-10 April 2015**

**MINUTES – Meeting 27
Dialogue Centre, Canberra ACT**

Attendance and Apologies

IN ATTENDANCE

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

OFFICE OF WATER SCIENCE (OWS) - SECRETARIAT AND SUPPORT

Gayle Milnes
 Sean Lane
 Helen Vooren
 Veronica Grobбен

OTHER STAFF OF THE DEPARTMENT OF THE ENVIRONMENT

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| Steven Kennedy Deputy Secretary (part of day 1) | Diana Wright First Assistant Secretary Science Division (part of day 1) |
| Charmayne Murray (Item 2) Environment Assessments and Compliance Division | Craig Moore (Item 2) Office of Water Science |
| Scott Lawson (Item 2, 4) Office of Water Science | Carl Zimmerman (Item 2) Office of Water Science |
| Philippa Higgins (Item 2) Office of Water Science | Anthony Swirepik (Item 2,3,4) Office of Water Science |
| Rod Dann (Item 2) Office of Water Science | Ben Roudnew (Item 2) Office of Water Science |
| Emma Wiadrowski (Item 2) Office of Water Science | Peter Baker (Item 3) Office of Water Science |
| Emily Turner (Item 2) Office of Water Science | Geraldine Cusack (Item 3) Office of Water Science |
| Moya Tomlinson (Item 2,3,4) Office of Water Science | John Higgins (Item 4) Office of Water Science |
| Nick Claydon (Item 4) Office of Water Science | Al Usher (Item 4) Office of Water Science |
| Jason Smith (Item 2) Office of Water Science | |

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INVITED GUESTS

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| Dr Brent Henderson (Item 3) CSIRO | Dr Simon Barry (Item 3) CSIRO |
| Dr Steve Lewis (Item 3) Geoscience Australia | Ms Bronwyn Ray (Item 3) Bureau of Meteorology |

The meeting commenced at 9.15 am on 9 April 2015.

1. Welcome and Introductions

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

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 27.

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

Since the last meeting there were no items agreed out of session. Minutes of the IESC's twenty-sixth meeting (10-11 March 2015) were confirmed and agreed for publication.

1.6 Correspondence

The IESC noted the action taken and the status of correspondence to 9 April 2015.

The IESC agreed on a protocol to handle unsolicited correspondence received by members, particularly in relation to projects that may come to or be before the IESC for advice.

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1.7 Environmental scan

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

- the publication of three pieces of IESC advice in accordance with Environment Protection and Biodiversity Conservation Regulation 2000 (EPBC Regulation);
- the recent release of a number of reports, research papers and the Australian Government's Energy White Paper; and
- feedback from meetings held between OWS and New South Wales and Queensland government officials, non-government organisations and other stakeholder groups.

1.8 Forward Planning Agenda

The IESC agreed the next meeting would be held on 14-15 May 2015. This would allow for items held over from the April meeting to be discussed. The IESC noted that presently no projects were scheduled for consideration at the May meeting. A discussion on the IESC's advice on research priorities would be added to the forward planning agenda for July.

A proposal for a small field trip originally scheduled for April 2015 will be reviewed subject to activities planned for the field trip scheduled for August.

2. Advice on Projects referred by Governments

2.1 Watermark Coal Project, NSW

The IESC received two requests for advice from the Australian Government Minister for the Environment, the Hon Greg Hunt MP, on the Watermark Coal Project which is at the approval stage.

The first request dated 26 February 2015, asked the IESC whether it would make any revisions to its previous advice on this project (provided in May 2013) in light of additional documentation and information that has been gathered since the original advice was prepared. In the second request dated 23 March 2015, the Minister sought the advice of the IESC on questions raised with the Minister by the local community.

The proposed project is a new open cut coal mining operation. It is located in the Gunnedah Basin within the Namoi catchment, 25 kilometres from Gunnedah in New South Wales. The proposed project area has a disturbance area of 4 084 hectares including three pits with one remaining as a final void. The proposed mine has an expected mine life of 30 years and an extraction rate of up to 10 million tonnes per annum of run of mine coal. The IESC provided its previous advice at the assessment stage of the proposed project to the Australian Government on 27 May 2013.

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

- groundwater modelling, conceptualisation, parameterisation and predictions, in particular the connectivity between the Permian rock and the Upper Namoi Alluvium, the role of faulting and the potential for paleo-channels to occur within the proposed project area;
- identification and assessment of potential impacts to aquatic ecosystems and water-related assets including groundwater-dependent ecosystems beyond the proposed project area;
- assessment of cumulative impacts with the nearby proposed Carooona Coal Project;
- potential impacts from salinity, particularly associated with the final mine void; and
- proposed water monitoring and management arrangements.

The IESC agreed to finalise advice relating to both requests for advice on this project by the due date for the first advice of 27 April 2015.

Consistent with the EPBC Regulations the advice on this project will be published on the IESC's website within 10 business days of being provided to the Minister for the Environment.

3. Bioregional Assessments

3.1 Update on Bioregional Assessments

An update was provided to the IESC on:

- a workshop hosted by CSIRO held on 8-9 April 2015 in Gunnedah, NSW on the bioregional assessment for the Namoi region. The focus was on the proposed approach to conceptualising and modelling the way coal and coal seam gas development may impact on water dependent assets for the BA's;
- current priority issues including ongoing work with conceptual models, impact variables, receptor locations, data access constraints and testing through implementation;
- work currently underway developing protocols for a process of stakeholder and expert consultation where additional input or testing may be required; and
- progress on the online components of the Information Platform with a demonstration coming to the July meeting.

The IESC noted and provided feedback on the coal resource development pathways for the Hunter, Sydney and Gippsland assessments.

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3.2 Presentation on Receptor impact modelling and Risks and cumulative impacts.

Dr Brent Henderson presented to the IESC and the IESC commented on the proposed methodology for receptor impact modelling, in particular on the ecology-hydrology modelling and variability in ecological response curves, the importance of clarity in terminology (particularly around the term baseline) and communication approaches. The presentation on the proposed methodology for undertaking the risk assessment including the cumulative impacts on receptors was deferred to the June meeting to allow for a more fulsome discussion.

The Chair thanked Dr Henderson, Dr Lewis and the other attendees for their presentations.

4. Research

4.1 Update on Research

An update was provided on the commissioning of new projects under the hydrogeology theme: *Bore and well induced inter-aquifer groundwater connectivity: Consequence modelling and experimental design*; and *Research to improve representation of faults and aquitards in Australian regional groundwater models to improve assessment of impacts of CSG extraction*.

Updates on progress were also provided on: the assessment of the health and environmental risks associated with chemicals used to extract CSG reports; the Reference List for Water-related Coal Seam Gas and Coal Mining Research Report (Part 4); and four Geoscience Australia reports on the hydrogeology of the Laura, St Vincent, Otway and Maryborough basins that are being edited prior to presentation to the IESC at the May meeting.

An indicative schedule to December 2016 of research products for IESC review was tabled and discussed. The schedule notes the timelines for reports that will be provided to the IESC for comment and endorsement, and has been included in the forward planning agenda.

The IESC acknowledged the progress in preparing reports for future meetings and agreed that at the July meeting the IESC would consider a process for and timeframe to undertake a stocktake on research, identify international and national knowledge gaps and pressure points as part of a strategic review the IESC's role in providing advice on research priorities.

4.2 Research Project – Monitoring and management of subsidence induced by longwall coal mining activity

The IESC endorsed the *Monitoring and management of subsidence induced by longwall coal mining activity* report with minor amendments, subject to the OWS circulating to IESC members the peer review comments and actions taken to address these.

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Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

Next Meeting

The next meeting is scheduled for 14-15 May 2015 in Canberra.

The meeting closed at 3.30 pm 10 April 2015.

Minutes confirmed as true and correct:

Ms Lisa Corbyn
IESC Chair

27 April 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 National Centre for Groundwater Research and Training (NCGRT) being a potential research and development provider. Flinders University will be a partner in some Office of Water Science projects e.g. borehole integrity and faults – aquitard – modelling projects. | No actual, potential or perceived conflict of interest exists and Professor Simmons participated fully in the IESC meeting. The reason for the decision is that the IESC is not decisions on funding of research projects so there is not a conflict in relation to the agenda and papers. Therefore there is no conflict in relation to the meeting. |