

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Minutes – Meeting 26, 10-11 March 2015**

**MINUTES – Meeting 26
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 Andrew Johnson

APOLOGIES

Dr Jenny Stauber

OFFICE OF WATER SCIENCE (OWS) - SECRETARIAT AND SUPPORT

Gayle Milnes
Sean Lane
Jason Smith
Helen Vooren
Veronica Grobben

OTHER STAFF OF THE DEPARTMENT OF THE ENVIRONMENT

Diana Wright First Assistant Secretary Science Division	Ben Roudnew (Item 2) Office of Water Science
Scott Lawson (Item 2) Office of Water Science	Carl Zimmerman (Item 2) Office of Water Science
Craig Moore (Item 2) Office of Water Science	Rod Dann (Item 2) Office of Water Science
Philippa Higgins (Item 2) Office of Water Science	Anthony Swirepik (Item 3,4,5) Office of Water Science
Mitchell Bouma (Item 2) Office of Water Science	Peter Baker (Item 3) Office of Water Science
Emma Wiadrowski (Item 2) Office of Water Science	Craig Watson (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	Al Usher (Item 4) Office of Water Science

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INVITED GUESTS

Dr Damian Barrett (Item 5.1) Gas Industry Social & Environmental Research Alliance	Dr David Post (Item 3) CSIRO
Dr Brent Henderson (Item 3) CSIRO	Becky Schmidt (Item 3) CSIRO
Steve Lewis (Item 3) GA	Bronwyn Ray (Item 3) BoM

The meeting commenced at 9.00am on 10 March 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. Apologies were received from Dr Jenny Stauber.

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 26.

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-fifth meeting (20 February 2015) were finalised, confirmed and agreed for publication.

1.6 Correspondence

The IESC noted the action taken and the status of correspondence to 28 February 2015. The protocol for handling IESC correspondence that is received by individual members was discussed. Members were reminded to refer any IESC correspondence to the Chair, copied to the Secretariat, to ensure that it is recorded and actioned as appropriate.

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1.7 Environmental scan

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

- with respect to development proposals on which the IESC had provided advice; and
- OWS meetings with the Northern Territory and West Australian governments, and other stakeholder groups.

Members discussed current understanding of BTEX (Benzene, Toluene, Ethylbenzene and Xylene) which can occur naturally in oil and coal seams, noting these chemicals are banned from use in CSG extraction in most jurisdictions in Australia.

1.8 Forward Planning Agenda

The IESC noted the forward planning agenda and items due for consideration through to December 2015. The IESC discussed the Request for Advice received from the Minister on the Watermark project, noting the significant amount of information and material to consider. It was agreed the next meeting would be scheduled for 9-10 April 2015. The site inspection as part of the induction process for newly appointed members is now proposed for late April 2015. Members also discussed options for the field trip scheduled for August 2015.

2. Advice on Projects referred by Governments

2.1 Mt Owen Continued Operations Project, NSW

The Australian Government Department of the Environment and the New South Wales Department of Planning and Environment sought the IESC's advice on the Mt Owen Continued Operations Project which is at the EIS stage.

The proposed project is an extension to an existing open coal mining operation. It is located in the Hunter Valley in New South Wales, approximately 20 kilometres northwest of Singleton. The proposed project area is located within the Hunter River Catchment and within the sub catchments of Bowmans Creek (to the west) and Glennies Creek (to the east). The proposed extension at a rate of up to 15 million tonnes per annum until 2030 forms part of a mining complex that incorporates the Ravensworth and Glendell mines.

Matters of interest to the IESC included:

- localised impacts from the proposed project which are likely to be similar in scale and significance to those associated with the existing Mount Owen and Ravensworth East mining operations;
- contribution of the proposed project to the cumulative impacts to water resources within the Hunter Valley;
- potential decline in riparian groundwater dependent ecosystems along ephemeral streams that provide habitat for the nationally listed endangered Spotted-tail quoll; and
- uncertainty in identifying potential impacts to surface water quality and quantity to Glennies Creek and to the Hunter River, due to the lack of information.

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Consistent with the Regulations of the EPBC Act, the advice on this project 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 Russell Vale Colliery Underground Expansion Project, NSW

The New South Wales Planning Assessment Commission sought the IESC's advice on the Russell Vale Colliery Underground Expansion Project which is at the assessment stage.

The proposed project is an extension to an existing underground coal mining operation. It is located in the southern coalfields of the Sydney Basin in New South Wales, approximately eight kilometres north of Wollongong and extending west beneath the Illawarra Escarpment State Recreation Area. The majority of the proposed project area is located within the Metropolitan Special Area proclaimed under the *NSW Sydney Water Catchment Management Act 1998*. It is expected that the mine output will be up to three million tonnes per annum of run-of-mine coal over a five year period.

This request was to consider the response of the proponent to the IESC advice previously provided on the Russell Vale Colliery Underground Expansion Project to the Commonwealth Department of the Environment and New South Wales Department of Planning and Environment in September 2014.

Matters of interest to the IESC included:

- geotechnical information needed on the geological features on the site including understanding of the Corrimal fault and basal shear planes and the potential for these to interact with Cataract Creek and Cataract Reservoir;
- notification and setback specifications and the potential effects of subsidence; and
- data and analysis to help improve confidence in the groundwater and surface water modelling predictions.

The advice will be provided to the New South Wales Planning Assessment Commission and, consistent with the Regulations of the EPBC Act, to the Commonwealth Minister (for information). The advice will be published on the IESC's website within 10 business days of being provided to the Planning Assessment Commission.

2.3 West Muswellbrook Project, NSW

The NSW Mining and Petroleum Gateway Panel sought the IESC's advice on the West Muswellbrook Project which is at the gateway stage.

The proposed project is a new open cut coal mining operation and associated infrastructure located in the Sydney Basin approximately 12 kilometres northwest of Muswellbrook and 140 kilometres northwest of Newcastle in the Upper Hunter Valley. This is a sizable development producing up to 15 million tonnes per annum with a disturbance area of 5 261 hectares over a mine life of 30 years.

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Matters of interest to the IESC included:

- Potential groundwater drawdown that may result in impacts to water levels in private bores and reduced flows to groundwater dependent ecosystems;
- Potential impacts to groundwater and surface water quality and quantity, and associated water-related assets, from stream diversions, removal of alluvium, and the final void; and;
- The cumulative impacts of large developments within the area.

The advice will be provided to the NSW Mining and Petroleum Gateway Panel and, consistent with the Regulations of the EPBC Act, to the Commonwealth Minister (for information). The advice will be published on the IESC's website within 10 business days of being provided to the NSW Mining and Petroleum Gateway

2.4 Flood Management Theme Sheet

The IESC endorsed the theme sheet, subject to minor amendments. It will be used as a resource for analysis of development proposals.

2.5 Update on the Review of the IESC Information Guidelines

The IESC considered a revised draft of the information guidelines. The IESC endorsed the revised draft guidelines as a basis for further consultation, subject to minor amendments. They would be provided to relevant government agency regulators for comment and subsequently circulated more widely for comment prior to finalisation.

3. **Bioregional Assessments**

Members of the Bioregional Assessment team presented to the IESC on the Gloucester assessment and two sub methodologies: 'assigning receptors and impact variables to water-dependent assets'; and 'developing the conceptual model for causal pathways'.

The IESC noted:

- The adoption of a revised approach to groundwater modelling for the Galilee assessment following the receipt of data from Queensland;
- A focus on development conceptual models across the program and finalising sub-methodologies on: assigning receptor locations and impact variables; handling subsidence impacts in the modelling; an approach for assessing impacts of hydraulic fracture propagation and the development and implementation of dedicated conceptual models across the programme.
- The development of the information platform where all products and data from the program would be made available.

Opportunities for utilising OWS research on ecological issues to inform the bioregional assessments were identified. The Chair thanked Dr Henderson, Dr Post and the other attendees for sharing their insights.

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4. Research

4.1 Update on Research

The IESC :

- Provided comment on and endorsed the scope of a new project *Bore and well induced inter-aquifer groundwater connectivity: Consequence modelling and experimental design*. The IESC identified key issues including contaminant transport, how uncertainties will be dealt with and the communication strategy for further consideration by OWS as the project proceeds.
- Noted the Monitoring and Management of Subsidence induced by Long Wall Coal Mining report and the Reference list for water-related coal seam gas and coal mining research (Part 4) is scheduled to be available to the IESC at the April IESC meeting, for endorsement prior to publication.
- Noted four reports on the hydrogeology of the Laura, St Vincent, Otway and Maryborough Basins would also be made available to the IESC over coming months for noting ahead of publication.
- Acknowledged the progress in commissioning of the new hydrogeology project *Research to improve representation of faults and aquitards in Australian regional groundwater models to improve assessment of impacts of CSG extraction*.
- Agreed the Research subcommittee would meet in the next quarter to consider a review of the IESC's research priorities.

5. Other items

5.1 Presentation on Gas Industry Social & Environmental Research Alliance

Dr Damian Barrett presented to the IESC on the Gas Industry Social and Environmental Research Alliance, including the governance model and its research priorities and findings.

Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

Next Meeting

The next meeting is scheduled for 9-10 April 2015 in Canberra.

The meeting closed at 3.30 pm 11 March 2015.

Minutes confirmed as true and correct:

Ms Lisa Corbyn
IESC Chair

18 March 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 provider for research projects. Flinders University will partner with CSIRO on 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 making funding decisions about specific research projects therefore there is no conflict in relation to the meeting.