

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Minutes – Meeting 15, 12-14 March 2014**

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12-14 March 2014**

Old Parliament House, Canberra

Attendance and Apologies

IN ATTENDANCE

Ms Lisa Corbyn (Chair)
Emeritus Professor Angela Arthington
Ms Jane Coram
Emeritus Professor Peter Flood
Dr Andrew Johnson (day 1 and by telephone on day 2)
Mr Jim McDonald
Professor Dayanthi Nugegoda
Professor Craig Simmons (day 1 and 2)

APOLOGIES

Dr Andrew Johnson (day 3)
Professor Craig Simmons (day 3)

OFFICE OF WATER SCIENCE (OWS) - SECRETARIAT AND SUPPORT

Suzy Nethercott-Watson
Gayle Milnes
Peter Baker
Scott Lawson
Sean Lane
Caryn Scott
Milica Milanja

OTHER STAFF OF THE DEPARTMENT OF THE ENVIRONMENT

Fiona Beynon (Days 1-3: Item 2) Office of Water Science	Edwina Johnson (Day 1: Item 3.1, 4) Office of Water Science
Anne Riesz (Days 2-3: Item 5) Office of Water Science	Craig Moore (Days 1-3: Item 2) Office of Water Science
Geraldine Cusack (Day 1: Items 3.1, 4) Office of Water Science	Crystal Bradley (Days 1-3: Items 1, 2, 5, 6, 7) Office of Water Science
Bruce Gray (Days 2-3: Item 5) Office of Water Science	Mitchell Bouma (Days 1-3: Item 2) Office of Water Science
Max Collett (Days 1-3: Item 2) Office of Water Science	Anu Datta (Days 1-3: Item 2) Office of Water Science
Sophie Alexander (Day 1: Item 1) Office of Water Science	Christine McKnight (Days 1-3: Item 2) Office of Water Science
Emily Turner (Days 1-3: Item 2)	Moya Tomlinson (Days 2-3: Item 5)

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Office of Water Science	Office of Water Science
Tony Slatyer (Day 1: Items 2, 3) Office of Water Science	Jeffery Fung (Day 3: Item 5) Office of Water Science
James Hill (Day 1, 3: Items 3-6) Office of Water Science	Robert Gale (Day 3: Item 5) Consultant
Ben Roudnew (Days 2-3: Item 5) Office of Water Science	Helen Vooren (Day 2) Office of Water Science

The meeting commenced at 9.15am on 12 March 2014.

1. Welcome and Introductions

As a result of the Chair's delayed plane arrival, Professor Craig Simmons opened the meeting as Acting Chair and welcomed members of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) to the meeting, noting apologies from:

- Dr Andrew Johnson on day 3; and
- Professor Craig Simmons on day 3.

1.1 Acknowledgement of country

The Acting Chair acknowledged the traditional owners, past and present, on whose land this meeting was held.

1.2 Conflict of interest

Before the meeting commenced, IESC members completed the Meeting Specific Disclosure 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 15.

1.4 Action items

The Chair arrived and assumed the chair, with completed items noted and other items were referred to agenda items for discussion later in the meeting.

1.5 Confirmation of out-of-session decisions

The Chair noted the following out-of-session items:

- the minutes of the IESC's fourteenth meeting (5-6 February 2014) were agreed out-of-session and posted on the IESC's website.

1.6 Correspondence

The IESC noted the status of correspondence to 21 February 2014.

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1.7 Environmental scan

The following developments were reported by the OWS:

- a draft assessments bilateral agreement between the Commonwealth and South Australian governments is out for public comment until 17 March 2014;
- the House of Representatives Standing Committee on the Environment announced an inquiry into streamlining environmental regulation ‘green tape’ and one-stop shops;
- the Queensland Competition Authority released its final report on the Queensland Government’s regulation of the coal seam gas industry; and
- the Office of Groundwater Impact Assessment (OGIA) has released its annual report on groundwater impacts from coal seam gas development in the Surat Basin.

The following developments were reported by the IESC:

- the Society of Environmental Toxicology and Chemistry (SETAC) Asia Pacific/Australasia is holding a joint conference in Adelaide in September 2014.

2. Advice on Projects referred by Governments

2.1 Teresa Coal Project, QLD (Draft EIS)

The Queensland Department of Environment and Heritage Protection and the Commonwealth regulator jointly sought the IESC’s advice in relation to the Teresa Coal Mine, NSW, at the draft environmental impact assessment stage.

The proposed project is a new underground longwall coal mine and associated infrastructure in the Bowen Basin with a projected operational life of 20-30 years producing approximately 8 Mtpa run-of-mine coal.

Matters of interest to the IESC included:

- subsidence impacts and the resultant potential underestimation of mine water inflow and groundwater drawdown (particularly in relation to the Tertiary sands);
- the potential increased mine water flow (i.e. discharge) impacts on flow regimes, geomorphology, water quality and consequential impacts on water related assets; and
- potential water quality impacts arising from the mixing of surface water and water drainage from overlying aquifers.

The IESC’s advice which identified potential inconsistencies and gaps in the draft EIS analysis will be published separately on the IESC’s website, in the context of the regulator’s decision.

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2.2 Bylong Coal Project, NSW (Gateway stage)

The NSW Mining and Petroleum Gateway Panel requested the IESC's advice in relation to the Bylong Coal Project, NSW. The proposed project is at the Gateway stage under NSW State Environmental Planning Policy, which occurs prior to lodgement of a development application and environmental assessment.

The proposed project is a new underground and open cut coal mine in the Sydney-Gunnedah Basin, approximately 55 kilometres north-east of Mudgee. The proposed development would have an operational life of 29 years and produce approximately 6 Mtpa run-of-mine coal.

Matters of interest to the IESC included:

- surface-groundwater interactions;
- potential impacts arising from subsidence;
- limited information on impacts to surface water and ecological communities; and
- potential contamination of water resources associated with the final landform.

The IESC's advice will be published separately on the IESC's website, in conjunction with publication of the advice on the Mining and Petroleum Gateway Panel website.

3. Bioregional Assessments

3.1 Bioregional Assessment Programme progress

The IESC discussed recent developments relating to the Bioregional Assessment Programme, including:

- recent stakeholder engagement activities in the bioregions; and
- the proposed manner of Indigenous engagement to assist in identifying cultural water related assets.

The IESC also provided feedback on the draft Coal Seam Gas and Coal Resource Assessment product for Gloucester, including the need to avoid anticipating regulatory approval and to include reference to all known development in the area.

4. Bioregional Assessments Methodology workshop

4.1 Bioregional Assessments Methodology workshop

At the IESC's invitation, the Bioregional Assessments project team, comprising representatives from CSIRO, the Bureau of Meteorology and Geoscience Australia joined the IESC and OWS staff for a separate half-day workshop. Discussion at the workshop focussed on the Bioregional Assessment sub-methodologies. The IESC

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provided advice on key elements of the sub-methodologies including in relation to the language used particularly around hazard identification and risk, the setting of the baseline, controls, development pathways and sensitivity analysis which will be minuted separately. The IESC discussed the team request for advice on the inclusion of Underground Coal Gasification in the BAs and subsequently advised that, on balance, it should be out of scope.

5. Research

5.1 Existing research

The IESC discussed the status of existing research projects, peer review comments and key developments since the IESC's February 2014 meeting. The IESC was informed of potential delays in the delivery of the chemical work, which will require further follow up and advice by OWS in light of the priority of chemical information.

5.2 Proposed new research

The IESC provided advice to the OWS on three new research proposals, which fall within the hydrology and ecology research priority themes. The IESC provided comments on the overviews provided including advice on the need to reframe two of the projects:

- (i) Groundwater and Faulting – reframe and focus on stage 2 (developing two location specific models on fault zone hydrology)
- (ii) Connectivity – rename to reflect the emphasis on aquitards , delete the desktop review and focus on regional scale permeability;
- (iii) Modelling Ecological Responses – progressing with the excellent project but relook at the timing, drawing out the linkages to the IESC work (CSG and BA). The IESC also suggested this presentation as a model for future research presentations and that a workshop be set up with the BA team to explore linkages in more depth.

There was also discussion on the feasibility of a follow-on stage to the current National Chemical Assessment Project, and whether this would be a priority to augment the current project to better cover deep groundwater under the chemical research priority theme. It was agreed feasibility work would be undertaken by the OWS and there were other minor changes suggested by the IESC which will be adopted by the OWS in the progression of the feasibility study.

The IESC provided comments on the proposed scope of the draft proposals and noted that the OWS would incorporate changes and then initiate and oversee the progression of these projects.

5.3 Background reviews

The IESC endorsed the following background reviews with minor edits:

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- Aquifer connectivity within the Great Artesian Basin, and the Surat, Bowen and Galilee Basins; and
- Predicting, monitoring, assessing, and remediating subsidence and other movement-related impacts associated with coal seam gas extraction in Australia.

The IESC requested that these reports be published by the OWS with some urgency and as soon as possible.

6. Other business

6.1 Regional water balance

The IESC discussed the concept of and expectations for regional water balances. The IESC agreed to explain the need for and review the guidance provided on regional water balances in its Information Guidelines.

6.2 Cumulative impacts

The IESC furthered its discussions on cumulative water related impacts from coal seam gas and coal mining developments. Topics of discussion included a high-level review of available information; key issues including scale, establishing a baseline, and access to information; and options for next steps. The IESC requested the OWS to consolidate the current analysis and progress an “insight” paper for the May meeting that outlines a summary of the current knowledge on assessing or judging assessments of cumulative impacts (utilising the work previously undertaken for the background review on cumulative impacts as well as other information), an analysis of the examples the IESC has already seen within development proposals that the IESC has reviewed, insights from the IESC and inclusion of the work done to create a cumulative impact assessment checklist which the IESC uses to assess the robustness of cumulative impacts within a development proposal.

The IESC agreed to discuss at its May meeting how cumulative impacts will be addressed within the Bioregional Assessment Programme.

6.3 Forward planning agenda

The IESC considered the forward agenda and discussed possible topics for consideration at the April 2014 meeting, including four project advices, the Peat Swamp and Groundwater Modelling research reports and a presentation by GA on its Broken Hill groundwater assessment.

7. Communications

7.1 Guidelines for release of IESC Advice

The IESC discussed the need to balance the capacity for decision makers to read and take account of the IESC advice but at the same time on the length of time that some of

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the IESC advices have now been available to regulators but not provided publicly. This new Guideline for publishing the IESC advice was to address this issue and provide some certainty on approaches across State and Commonwealth jurisdictions.

8. Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

The Chair noted that this would be the last meeting for Ms Nethercott-Watson. The IESC provided a unanimous vote of thanks and recognition for the exceptional work she has done both in supporting the IESC and for her intellectual and organisational contributions.

Next Meeting

The next meeting will be held over three days on 8-10 April 2014 in Canberra.

The meeting closed at 11.30am on 14 March 2014.

Minutes confirmed as true and correct:

Ms Lisa Corbyn
IESC Chair

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Attachment A

Item(s)	IESC member	Disclosure	Determination
3.1 5.2	Jane Coram	I consider that there may be a possible conflict of interest in relation to agenda items 3.1 and 5.2 arising from Geoscience Australia’s involvement in bioregional assessments and Geoscience Australia’s potential interest in undertaking the research activities.	No actual, potential or perceived conflict of interest exists and Jane participated fully in the Committee meeting. The reason for the decision is that the IESC is not making decisions on funding of research and therefore there is not conflict in relation to this meeting.
5	Craig Simmons	I consider that there may be a possible conflict of interest in relation to agenda item 5 (Research) arising from National Centre for Groundwater Research and Training (NCGRT) being a potential provider of R&D to the Committee/OWS	No actual, potential or perceived conflict of interest exists and Craig participated fully in the IESC meeting. The reason for the decision is that the IESC is not making decisions on funding of research and therefore there is not conflict in relation to the meeting.