

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

**MINUTES – Meeting 5
16-18 April 2013**

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)
Mr Jim McDonald
Professor Dayanthi Nugegoda
Professor Craig Simmons

APOLOGIES

Dr Andrew Johnson (Day 2 and 3)

OFFICE OF WATER SCIENCE - SECRETARIAT AND SUPPORT

Suzy Nethercott-Watson
Gayle Milnes
Peter Baker
Jason Smith
Caryn Scott
Milica Milanja

OTHER STAFF OF THE DEPARTMENT OF SUSTAINABILITY, ENVIRONMENT, WATER,
POPULATION AND COMMUNITIES (DSEWPaC) AND INVITED GUESTS

| | |
|---|---|
| Kate Bayliss (Days 1-3: Items 2.1-2.3, 2.5-2.7) Office of Water Science | Rachel Ross (Days 1-3: Item 2.1-2.3, 2.5-2.7) Office of Water Science |
| Ben Maly (Days 1-3: Items 2.1-2.3, 2.5, 2.6) Office of Water Science | Emily Turner (Days 1-2: Items 2.1-2.3, 2.6) Office of Water Science |
| Edwina Johnson (Day 1-2: Items 2.5, 3.1-3.4) Office of Water Science | Anna-Liisa Lahtinen (Days 1-3: Items 2.1-2.3, 2.6) Office of Water Science |
| Yvette Blackman (Days 1-3: Items 2.1, 2.5) Office of Water Science | Deborah Chen (Day 1, 3: Items 2.4, 5.1, 5.2) Office of Water Science |
| Bruce Gray (Day 3: Item 5.1) Office of Water Science | Liam Curtis (Days 1-3: Items 2.1-2.3, 2.6) Office of Water Science |
| Kate Livett (Days 1-3: Items 2.1-2.3, 2.5-2.7) Contractor (technical writer) | Kelly White (Day 2: Item 4.1) DSEWPaC Public Affairs |

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

| | |
|---|--|
| Crystal Bradley (Day 2: Item 4.1) Office of Water Science | Amanda Cox (Day 2: Item 4.1) DSEWPaC Public Affairs |
| Anu Datta (Days 3: Items 2.6) Office of Water Science | Derek Eamus (Day 1: Item 2.4) University of Technology, Sydney |
| Ebony Coote (Day 1: Item 2.4) Office of Water Science | Kimberley Hammond (Day 1: Item 2.5) Office of Water Science |
| Carla Morgan (Day 3: Item 5.1, 5.2) Office of Water Science | Geraldine Cusack (Day 1-2: Item 2.4, 3.1-3.4) Office of Water Science |
| Dianne Flett (Day 2: Item 3.1-3.4) Dianne Flett & Associates | Anisa Coric (Day 2: Item 3.1-3.4) Office of Water Science |
| Helen Vooren (Day 1: lunch break) Office of Water Science | |

The meeting commenced at 9.00am.

1. Welcome and Introductions

The Chair welcomed Committee members noting:

- Apologies from Dr Andrew Johnson on Days 2 and 3.

1.1 Acknowledgement of Country

The Chair acknowledged the Ngunnawal and Ngambri people, past and present, on whose land this meeting was held.

1.2 Conflict of Interest

Before the meeting commenced, Committee 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 Committee endorsed the agenda for Meeting 5.

1.4 Action Items

Completed items were noted and other items were referred to agenda items for discussion later in the meeting.

1.5 Confirmation of Out-of-Session Decisions

The minutes of the Committee's fourth meeting (20-21 March) were agreed out-of-session and posted on the IESC website. Members noted that discussions involving some members of the Research Sub-Committee took place on 28 March and 10 April and a number of interactions with the chair of the Bioregional Assessment Sub-committee also occurred out of session.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

1.6 Correspondence

The Committee noted that a register of Committee correspondence has been established to record incoming and outgoing correspondence. The register and all correspondence will be made available to members electronically. Members also noted that correspondence protocols have been proposed. These protocols will be finalised as part of the IESC Communication and Stakeholder Engagement Strategy.

1.7 Environmental Scan

The following developments were reported by the Office of Water Science (OWS):

- the Australian Government's proposed amendments to the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* have been referred to the Senate Committee on Environment and Communications Committee (legislation) prior to introduction into the Senate in May 2013;
- Australian governments are considering revised guidelines for protecting the quality of groundwater across Australia;
- the Great Artesian Basin Water Resource Assessment and the Allocating Water and Maintaining Springs in the Great Artesian Basin projects were launched in Adelaide on 27 March 2013; and
- unconventional gas is one of the issues being considered by the Prime Minister's Science, Engineering and Innovation Council.

The Committee Chair reported:

- that she and the Deputy Chair would appear as witnesses before the Senate Committee on Environment and Communications Committee (legislation) Inquiry into the *Environment Protection and Biodiversity Conservation Amendment Bill 2013* following the close of the meeting; and
- on an upcoming meeting with the Victorian Gas Market Taskforce also scheduled for 18 April 2013.

2. Advice on Projects Referred by Governments

The Committee provided advice on three large coal mine proposals.

2.1 The Range Coal Project, QLD EIA (supplementary)

The Committee was referred the Range Coal Project, Queensland, for advice to the Commonwealth regulator, at the supplementary Environmental Impact Assessment stage.

The project is a proposed open cut coal mining operation, located approximately 25km south-east of Wandoan, in the Surat Basin with a mine lease area of 5,226 hectares. The project sits within the Great Artesian Basin and is located in the Condamine-Balonne and Fitzroy River catchments.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

The Environmental Impact Statement for this project was available for public comment between 21 December 2012 and 25 January 2013.

Matters of interest to the Committee included release scenarios, potential impacts on the Murray Cod and Fitzroy River Turtle, regional water balance and salinity relationship to sodicity.

The Committee's advice will be published separately on the Committee's website in the context of the regulator's decision.

2.2 Foxleigh Coal Mine Extension, QLD EIA (supplementary)

The Committee was requested to provide advice to the Commonwealth regulator on the Foxleigh Coal Mine Extension, Queensland, at the supplementary Environmental Impact Assessment stage.

The project is a proposed expansion of the existing Foxleigh Coal Mine located approximately 12 kilometres south-east of Middelmount in the Fitzroy Basin, central Queensland. The proposed expansion would use open cut mining methods. The total project area is 3,798 hectares and the actual area of disturbance is estimated to be approximately 60 per cent of this area (approximately 2,279 hectares).

Public comment on the Environmental Impact Statement for this project was invited between 4 June 2012 until 16 July 2012.

Matters of interest to the Committee included site and regional water balance, Cockatoo Creek diversion, discharge water quality, groundwater modelling and potential impacts on matters of national environmental significance.

The Committee's advice will be published separately on the Committee's website in the context of the regulator's decision.

2.3 Cobbora Coal Project, NSW EIA (draft)

The Committee was referred the Cobbora Coal Project, New South Wales, for advice to the Commonwealth regulator, at the draft Environmental Impact Assessment stage.

The project location is in central west NSW, approximately 11 km south of Cobbora, 22 km south-west of Dunedoo, 58 km west of Mudgee and 60 km east of Dubbo. The proposed project will involve the construction of a new open cut coal mine and associated infrastructure to extract and process raw coal and will cover a total area of approximately 3,000 hectares.

The referral for the proposal was notified on the department's website between 26 October 2011 and 8 November 2011.

Matters of interest to the Committee included water balance, drawdown size and extent of spatial area, impacts on grassy woodlands and salinity connectivity issues.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

The Committee's advice will be published separately on the Committee's website in the context of the regulator's decision.

2.6-7 Review of Advice on Projects

The Committee discussed the approach they undertake to formulate their advice on projects and agreed to the following actions:

- that the supporting information provided by OWS include a one page overview that sets the context for the project;
- to develop a checklist and style guide to assist the preparation of OWS's supporting information and the Committee's advice on projects;
- that the Information Guidelines, when they are reviewed, should suggest that information be provided on salt balances and climate change variability in relation to modelling.

2.4 Groundwater-Dependent Ecosystems

At the Committee's invitation, Professor Derek Eamus, University of Technology Sydney, briefed the Committee on Groundwater Dependent Ecosystems (GDEs). Discussion focussed on:

- obtaining site specific data on groundwater dependent species;
- knowledge gaps and the lack of data available on groundwater dependency of Australian native species;
- what can be measured to assess impacts of lowering the water table on GDEs; and
- impacts of reducing groundwater availability.

Members requested that based on the presentation and other information available, OWS produce an information sheet for the Committee, listing issues for it to consider in relation to GDEs when formulating advice on projects, for discussion at the June meeting.

2.5 Request for Advice Relevant to Amendments to the EPBC Act

The Committee further considered and provided comments on a draft response to the Minister's letter dated 12 March 2013, which sought advice from the Committee relevant to the proposed amendments to the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Members agreed to provide final comments on the draft response with a view to finalising it out-of-session.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

3. Bioregional Assessments

3.1 Bioregional Assessment Methodology - Endorsement

The Committee reviewed a revised version of the Methodology for bioregional assessments of the impacts of coal seam gas and coal mining development on water resources (BRAM). This version had been circulated out-of-session and incorporated members' earlier comments. The Committee requested some additional minor edits principally relating to water quality and future activities such as monitoring. The Committee endorsed the BRAM as amended.

3.2-3 Bioregional Assessment Methodology – Products and Decision Points

The Committee discussed the technical products that are likely to be produced for Bioregional Assessments and appropriate governance and decision points which might involve the Committee.

In relation to their role in the decision points, which will be made at a number of stages during the technical work and development of products, the Committee requested OWS provide a paper outlining the details of the proposed governance and quality assurance processes for the bioregional assessments for it to consider at the May meeting.

3.4 Namoi Update

The Committee considered an OWS report on the bioregional assessment being undertaken for the Namoi sub-region., which is part of the New South Wales Northern Inland Catchments bioregion. The Committee requested OWS provide a monthly update on the Namoi and other priority sub-region bioregional assessments.

4. Strategic Items

4.1 Communications

The Committee provided comments on the draft IESC Communication and Stakeholder Engagement Strategy (the Strategy), the proposed website structure/content and a draft list of fact sheets. Members' agreed:

- OWS would revise the Strategy in line with comments, including to be more specific about actions and timelines, for the Committee to review at its May meeting;
- to the proposed website structure and content (amended as per comments);
- OWS would seek relevant approvals for a new domain name for the Committee's website; and,
- OWS would develop refined list of proposed factsheets and an estimated date of completion for consideration at the Committee's May meeting.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

5. Research

5.1 Research Priorities

The Committee reviewed the list of research topics that had been developed ahead of the March meeting. Members considered whether there were any critical gaps in the list of research topics and then rated the topics as follows, taking into account agreed criteria, developments on the bioregional assessments, and other research underway or planned:

- Green – develop further into a research project;
- Amber – potential to develop further into a research project, depending on developments, e.g. pending the outcomes of research already underway; and
- Red – do not develop further into a research project.

From this discussion, the Committee identified next steps:

- to address gaps, OWS to: work with the Research Sub-Committee to scope a project on cumulative impacts; consider scope for a review of mitigation strategies, including their effectiveness, proposed by CSG and large coal mining companies; and, consider developing a fact sheet on any potential risks of seismicity induced by hydraulic fracturing;
- for OWS to work with the Research Sub-committee to scope projects for the green and, as appropriate amber, research topics;
- for OWS to develop a matrix showing information gaps and how/who they are being addressed;
- for OWS to develop the draft research plan for consideration at the May meeting;
- for OWS to work with the Research Sub-Committee to draft a letter providing advice to the Commonwealth Environment Minister on the Committee's research priorities; and
- that the draft terms of reference for the Research Sub-committee be circulated for members' consideration out-of-session.

5.2 Review of Critical Science Reviews

At their February and March meetings, the Committee considered seven out of the eight Critical Science Reviews (CSR) that were commissioned in mid-2012 by the Office of Water Science, on the advice of the interim Committee, to provide an overview of the state of the science underpinning coal seam gas and coal mining impact management in key areas. The Committee considered and provided comments on the remaining CSR titled:

- *Coal seam gas and coal mining techniques and methods, and associated risks to surface and ground water systems and their environmental values.*

Members agreed it was a useful review but that further work was required, including so that recent ecological references were considered and that references referred to the

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

original source. Other next steps included providing an opportunity for state government representatives to read and comment as well as proceeding to peer review.

A list of potential peer reviewers for all of the Critical Science Reviews was circulated to the Committee for feedback out-of-session.

Meeting Review

1.8 Review of Meeting and Forward Planning Agenda

The Committee considered the forward agenda and determined the following priorities for the May meeting:

- advice on five-six coal seam gas and large coal mining projects;
- update on the bioregional assessments;
- review of research topics and research plan
- review of the Great Artesian Basin Springs Survey research project; and the water asset collation projects being undertaken by natural resource management bodies.
- a dedicated session on assessing cumulative impacts;
- further consideration of the Communications and Stakeholder Engagement plan, and revised list of fact sheets.

The Committee agreed it would meet over three days (21-23 May 2013), noting that two members were unavailable on 21 May 2013.

Close of Meeting

The Chair thanked everyone for their contributions to the meeting.

Next Meeting

The next meeting will be held on 21-23 May 2013 in Canberra.

The meeting closed on 18 April at 1.00pm.

Minutes confirmed as true and correct:

Ms Lisa Corbyn
Committee Chair

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 5, 16-18 April 2013**

Attachment A

| Item(s) | Committee member | Disclosure | Determination |
|----------------|-------------------------|--|---|
| 3 | Andrew Johnston | I consider that there may be a possible conflict of interest in relation to agenda item 3 arising from CSIRO's role in the Bioregional Assessment Methodology. | No actual, potential or perceived conflict of interest exists and Andrew participated fully in the meeting (for Day 1). The reason for this decision is that the Committee is only considering the Bioregional Assessment Methodology not commissioning the individual Bioregional Assessments which will be done by the Office of Water Science. |
| 3 | Jane Coram | I consider that there may be a possible conflict of interest in relation to agenda item 3 arising from my agency Geoscience Australia's involvement in contributing to the Bioregional Assessment Methodology and potentially in implementing the assessments. | No actual, potential or perceived conflict of interest exists and Jane participated fully in the meeting. The reason for this decision is that the Committee is only considering the Bioregional Assessment Methodology, not commissioning the individual Bioregional Assessments, which will be done by the Office of Water Science. |
| 5.1 | Craig Simmons | I consider that there may be a possible conflict of interest in relation to agenda item 5.1 arising from the National Centre for Groundwater Research and Training being a potential service provider for research. | No actual, potential or perceived conflict of interest exists and Craig participated fully in the meeting. The reason for this decision is that the Committee is not considering projects and project funding at this meeting. |