

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

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20-22 August 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 (from 1pm day 2)
Dr Andrew Johnson (by telephone days 2 and 3)
Mr Jim McDonald
Professor Dayanthi Nugegoda
Professor Craig Simmons

APOLOGIES

Emeritus Professor Peter Flood (day 1 and day 2 until 1pm)
Dr Andrew Johnson (day 1)

OFFICE OF WATER SCIENCE - SECRETARIAT AND SUPPORT

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

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

Kate Bayliss (Days 1-3: Items 2.1, 2.3, 2.7, 2.8, 3.4, 5.1) Office of Water Science	Fiona Beynon (Days 1-3: Items 2.1, 2.4, 2.7, 2.8, 5.1) Office of Water Science
Deborah Chen (Days 1-3: Items 3.1, 3.2, 3.5, 5.1) Office of Water Science	Geraldine Cusack (Days 2-3: Items 4.1-4.3) Office of Water Science
Emily Turner (Days 1-3: Items 2.1) Office of Water Science	Liam Curtis (Days 1-3: Items 2.1) Office of Water Science
Anu Datta (Days 1-3: Items 2.2) Office of Water Science	Jason Smith (Day 1: Items 1-2) Office of Water Science
Crystal Bradley (Day 2 and 3: Items 6.2, 5.1,	Bruce Gray (Day 2: Item 3.5)

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

5.2, 7.1, 7.2) Office of Water Science	Office of Water Science
Casa Dalton (Day 2: Item 3.5, 5.1) Office of Water Science	Anna-Liisa Lahtinen (Day 2: Item 3.4) Office of Water Science
Kimberley Hammond (Days 2- 3: Items 6.2, 5.1, 5.2, 7.1, 7.2) Office of Water Science	Craig Watson (Day 3: Item 3.4) Office of Water Science
Baskaran Sundaram (Day 2: Item 3.4) Geoscience Australia	Tim Ransley (Day 2: Item 3.4) Geoscience Australia
Andrew Feitz (Day 2: Item 3.4) Geoscience Australia	K P Tan (Day 2: Item 3.4) Geoscience Australia
S Cook (Day 2: Item 3.4) Geoscience Australia	M Crowe (Day 2: Item 3.4) Geoscience Australia
Philip Deamer (Day 3: Item 4.2) Bureau of Meteorology	Ian McVay (Day 3: Item 4.2) Bureau of Meteorology
Sheha Satya (Day 3: Item 3.3) National Industrial Chemicals Notification and Assessment Scheme	

The meeting commenced at 12.30pm on 20 August 2013.

1. Welcome and Introductions

The Chair welcomed Committee members noting:

- Apologies from Professor Peter Flood on day 1 and until 1.00pm on day 2;
- Apologies from Dr Andrew Johnson on day 1; and
- Dr Johnson will participate in the meeting by teleconference on days 2 and 3.

1.1 Acknowledgement of country

The Chair acknowledged the traditional owners, 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 agreed to some scheduling changes and endorsed the agenda for Meeting 9.

1.4 Action items

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

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

1.5 Confirmation of out-of-session decisions

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

- IESC Chair wrote to the Commonwealth Environment Minister on 7 August 2013, to provide the Committee's advice on priorities for research projects;
- IESC Chair responded to the Commonwealth regulator's request for comment on the draft significant impact guidelines on 29 July 2013; and
- The minutes of the Committee's eighth meeting (25 July) were agreed out-of-session and posted on the Committee website.

1.6 Correspondence

The Committee noted the status of correspondence up to 13 August 2013.

1.7 Environmental scan

The following developments were reported by the OWS:

- The NSW Chief Scientist released an initial report on coal seam gas in NSW on 30 July 2013. The report describes key issues associated with the industry and notes the challenges posed by CSG; and
- The Office of Water Science (OWS) gave a presentation to the Indigenous Water Advisory Committee on bioregional assessments.

2. Advice on Projects Referred by Governments

2.1 Byerwen Open Cut Coal Mine, QLD (Assessment Draft EIS)

The Committee was referred the Byerwen Open Cut Coal Mine Project, QLD, for advice to the Office of the Coordinator-General, Queensland Department of State Development, Infrastructure and Planning and to the Commonwealth regulator. The project is at the Draft Environmental Impact Statement (EIS) stage.

The proposed project is a new open cut coal mine, located adjacent to several other existing third party coal mining operations. The project area is located approximately 140 km west of the regional centre of Mackay, within the Rosella Creek and Upper Suttor River sub-catchments of the Bowen River and Suttor River catchments respectively.

The EIS for the Byerwen Coal Project was available for public comment from 8 June to 23 July 2013.

Matters of interest to the Committee included:

- Cumulative impacts in the Northern Bowen Basin
- Groundwater modelling
- Modelling of the site water balance

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

- Changes to surface hydrology
- Final voids
- The potential for impacts to wetlands of high ecological significance and migratory species

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

2.2 Arrow Surat Gas Project, QLD (Assessment Supplementary EIS)

The Committee was referred the Arrow Surat Gas Project, QLD, for advice by the Commonwealth regulator, at the supplementary EIS stage.

The proposed project is an expansion of Arrow Energy's coal seam gas operations in the Surat Basin, Queensland. The proposal is located approximately 160 km west of Brisbane. It straddles the Murray-Darling and Northeast coast drainage divisions and occurs across four drainage basins: Condamine-Culgoa, Border Rivers, Fitzroy and Moonie.

The draft EIS was released for public comment between 16 March 2012 and 14 June 2012 and the proponent submitted a supplementary EIS on 28 June 2013.

Matters of interest to the Committee included:

- Condamine Alluvium and potential connectivity with the Walloon coal measures
- Groundwater and surface water modelling
- Estimates of co-produced waters
- Discharge strategy
- Brine management
- Cumulative Impacts.

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

3. Research

3.1 Committee's advice on priorities for research projects

The Committee agreed:

- That its advice on priorities for research projects be made available on the IESC website and circulated by email to key stakeholders following a suitable period of time for consideration by the Minister after the caretaker period; and
- That the IESC web pages on research be updated to reflect the revised themes.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

The Committee requested the OWS to expedite scoping of potential projects and agreed to discuss further objectives and performance measures for research projects and to revisit the terms of reference for the research sub-committee and its possible role in guiding research projects.

3.2 & 6.1 Factsheets and critical insights from the Critical Science Reviews

The Committee considered and provided feedback on a revised version of the Hydraulic Fracturing factsheet and the critical insights from the Critical Science Review on Hydraulic Fracturing. It was noted that the Critical Science Reviews were currently being peer reviewed.

The Committee agreed that:

- The content of the factsheets should reflect the state of knowledge (incorporating but not being restricted to the findings of the Critical Science Reviews) and be aligned with the role of the Committee, with an initial focus on the following topics: hydraulic fracturing; connectivity; subsidence; co-produced water; and bore integrity;
- The executive summaries of the Critical Science Reviews should be reworked to adequately capture the key science findings/insights; and
- The OWS should prepare theme sheets, drawing on research and the Committee's project advice to date, that would assist the Committee and OWS staff to prepare advice on coal seam gas and large coal mining projects. The themes would be aligned with the Committee's Information Guidelines. The Committee requested that the OWS expedite completion of, and provide a schedule showing the status of, the Critical Science Reviews.

3.3 Update on the National Assessment of Chemicals Associated with Coal Seam Gas Extraction project

At the Committee's invitation, the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) briefed the Committee on the National Assessment of Chemicals Associated with Coal seam Gas Extraction project.

The Committee appreciated the update which included an overview of the project scope, methodology and outputs and progress to date.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

3.4 Groundwater hydrochemical characterisation of the Surat Basin and Laura Basin QLD

At the Committee's invitation, representatives from Geoscience Australia, attended the meeting to present the key findings from a report entitled *Groundwater Hydrochemical Characterisation of the Surat Region and the Laura Basin*. The presenters provided an overview of the, objectives, methodology, outputs, knowledge gaps and the potential implications of the key findings of the project and its data analysis. The Committee thanked the presenters and noted that the OWS is currently considering the next steps for peer review and publication of the report.

3.5 CSG subsidence project final report

The Committee considered and provided comments on the OWS Knowledge Project: *Coal Seam Gas – Monitoring and Management of Subsidence*. The Committee noted that the report would be sent by the OWS for peer review and suggested possible additional peer reviewers.

4. Bioregional Assessments

4.1 Bioregional Assessments program progress

The Office of Water Science provided the Committee with an update on recent activities in the priority bioregions, those being the Lake Eyre Basin, Clarence Moreton, Northern Inland Catchments, Gippsland and Sydney (north and south).

The Committee noted the bioregional assessment updates. The Committee requested and it was agreed that regular updates on bioregional assessment progress will continue at Committee meetings. The Committee agreed that a standing agenda item be included at each meeting to increase the dialogue between the Committee and the project leaders. This would provide for an up-to-date understanding and active input by the Committee in its advisory role in relation to bioregional assessment products that are in progressive developmental phases.

4.2 Information Platform for Bioregional Assessments

At the Committee's invitation, the Bureau of Meteorology presented the current state of an early prototype of a Bioregional Assessment Information Platform. The Information Platform project aims to develop over the next three years a nationally consistent repository and quality assurance processes to store surface water, groundwater and related environmental and geological data about Australia's major coal basins based on outputs from the Bioregional Assessments.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

The Committee was given an overview of the various functions and information that could be accessed through the platform. The platform will complement other water-related databases and will provide a means of storing and displaying data relevant to bioregional assessments. The final design and appearance of the platform is under development and it will serve as the public information portal once it is operational.

4.3 Quality assurance for BAs including Technical Assurance Reference Group

The OWS updated members on the Quality Assurance process for the Bioregional Assessments and the commencement of a Technical Assurance Reference Group (TARG). All bioregional assessment products will have a final review undertaken by the TARG. The TARG will work with other scientific agencies to ensure high quality products are delivered. The Committee stressed the importance of the scientists on the TARG and the IESC having a shared vision that bioregional assessments, using the agreed methodology, will be delivered to high standard and made publically available.

The Committee discussed its role in the bioregional assessments and the importance of ensuring that the bioregional assessments products are on track to deliver a multi-disciplinary integrated program.

The Committee:

- Noted the Quality Assurance process for the BAs and the nature of the TARG; and
- Agreed on a process for Committee members to be updated regularly and provide feedback on the products from bioregional assessments to OWS.

5. Approach to providing advice on projects

5.1 Discussion paper on cumulative impacts

Following on from an earlier discussion in the June meeting, the Committee discussed the nature of the information that was being provided and the assessment of that information on cumulative water related impacts. The Committee discussed its experience with current cumulative impact assessments and appropriate roles it might play to improve them and their subsequent use in project advices.

Topics of discussion included:

- What information was being provided in development proposals in relation to cumulative impact based on those projects the Committee had assessed to date
- Where the information resided and was provided (proponent, state or Commonwealth) and was used for assessments on cumulative impact;
- How cumulative impact assessments are evaluated by the Committee in their consideration of requests for advice on individual coal seam gas and large coal mining developments;

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

- What manner of information the Bioregional Assessments would provide in relation to water related cumulative impact assessment of coal seam or large coal mines; and
- What mechanisms are available for the Committee to improve the evaluation of water related cumulative impact assessments.

The Committee agreed:

- That a checklist would be a useful tool to document how the Committee evaluates water related cumulative impact assessments in a methodical, repeatable and transparent manner;
- To provide feedback to the OWS on the draft checklist for cumulative impact assessment;
- That a review and further discussion on how Bioregional Assessments would be expected to inform assessment of individual projects considered by the Committee be undertaken at the September meeting; and
- To initiate a dialogue on water related cumulative impact assessments with regulators and industry.

5.2 Tools for preparing IESC advice on coal seam gas and large coal mining projects

The Committee considered a number of tools and templates to support the preparation of IESC advice on coal seam gas and large coal mining projects. Members considered a checklist, a style guide and the way information is captured for the IESC provision of advice to ensure advice on projects is prepared in a consistent way. Members endorsed the tools pending any final comments from members provided out of session and also discussed the information the Committee receives for project consideration and ways members would value improvements to this.

6. Communications

6.2 Revised IESC Communications Strategy

The Committee provided feedback on the IESC Communications Strategy, which had been revised to incorporate comments provided by the Committee at its meeting in April 2013. The Committee agreed to discuss further its role in disseminating information as well as branding issues and to revisit the strategy later in the year.

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development
Minutes – Meeting 9, 20-22 August 2013**

7. Close and other business

7.1 Annual review of the Committee's work

The Committee discussed their work to date and agreed:

- To produce an annual report reviewing the work of the Committee for the 12 months from December 2012 to December 2013;
- That the annual report would be provided to the Commonwealth Environment Minister and be made publicly available; and
- To conduct a review of the Committee's progress against its key objectives.

7.2 Review of meeting and forward planning agenda

The Committee considered the forward agenda and discussed possible topics for consideration at the September 2013 meeting.

Close of Meeting

The Chair thanked everyone for their contributions to the meeting.

Next Meeting

The next meeting will be held over two days on 25-26 September 2013 in Canberra.

The meeting closed at 3.55pm on 22 August.

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 9, 20-22 August 2013**

Attachment A

Item(s)	Committee member	Disclosure	Determination
3	Craig Simmons	I consider that there may be a possible conflict of interest in relation to agenda item 3 (research), NCGRT may be a potential provider of research projects	No actual, potential or perceived conflict of interest exists and Craig participated fully in the Committee meeting. The reason for the decision is the discussion on research is on next steps and will not include decisions on specific research projects so there will be no conflict.
3.4, 4.1, 4.2	Jane Coram	I consider that there may be a possible conflict of interest in relation to agenda item 3.4, 4.1 and 4.2 arising from my agency Geoscience Australia's close involvement in the delivery of the projects in question.	No actual, potential or perceived conflict of interest exists and Jane participated fully in the Committee meeting. The reason for the decision is the projects were previously commissioned by OWS and the IESC is not making decisions on allocation of funds for these projects.