

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Minutes – Meeting 14, 5-6 February 2014**

**MINUTES – Meeting 14
5-6 February 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 (by telephone)
Mr Jim McDonald
Professor Dayanthi Nugegoda
Professor Craig Simmons

APOLOGIES

Nil

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

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| Fiona Beynon (Days 1-2) Office of Water Science | Edwina Johnson (Day 1: Item 4) Office of Water Science |
| Pamela Finger (Day 2: Item 3) Office of Water Science | Craig Moore (Days 1-2) Office of Water Science |
| Anne Riesz (Days 1-2: Items 2, 3, 4.1) Office of Water Science | Crystal Bradley (Days 1-2: Items 1, 2) Office of Water Science |
| Bruce Gray (Days 1-2: Items 3, 4.1) Office of Water Science | Anna-Liisa Lahtinen (Days 1-2: Item 2) Office of Water Science |
| Max Collett (Days 1-2: Item 2) Office of Water Science | Anu Datta (Days 1-2: Item 2) Office of Water Science |
| Kimberley Hammond (Day 1: Item 5) Office of Water Science | Christine McKnight (Days 1-2: Item 2) Office of Water Science |
| Emily Turner (Days 1-2: Item 2) Office of Water Science | Moya Tomlinson (Days 1-2: Item 2) Office of Water Science |

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| Ebony Coote (Day 2: Item 5) Office of Water Science | Liam Curtis (Days 1-2: Item 2) Office of Water Science |
| Mitchell Bouma (Days 1-2: Item 2) Office of Water Science | Geraldine Cusack (Days 1-2: Items 2, 4.1, 5) Office of Water Science |
| David Kitto (Day 1: Item 2.1) NSW Department of Planning and Infrastructure | Sneha Satya (Day 2: Item 5.2) National Industrial Chemicals Notification and Assessment Scheme |
| David Harriss (Day 1: Item 2.1) Office of Water Science | Mitchell Isaacs (Day 1: Item 2.1) Office of Water Science |
| Dirk Mallants (Day 2: Item 5.2) CSIRO | Dane Roberts (Day 2: Item 5.2) Chemical Assessments Section Department of the Environment |

The meeting commenced at 9.00am on 5 February 2014.

1. Welcome and Introductions

The Chair 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 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 14.

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 Chair noted the following out-of-session items:

- the minutes of the IESC's thirteenth meeting (10-12 December 2013) were agreed out-of-session and posted on the IESC's website.

1.6 Correspondence

The IESC noted the status of correspondence to 20 January 2014.

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1.7 Environmental scan

The following developments were reported by the OWS:

- memoranda of understanding have been entered into with all states and territories to pursue implementation of the Australian Government's 'one-stop shop' for environmental approvals;
- new assessment bilateral agreements were established, and are now in effect, with Queensland and NSW;
- the NSW Government has expanded the exclusion zones initially introduced in October 2013, to protect future residential growth areas, seven NSW rural villages, and the equine and viticulture critical industry clusters in the Upper Hunter, from coal seam gas exploration and development;
- the Victorian Government is initiating a science programme and establishing a review panel to provide scientific advice on the approach to onshore gas developments;

The following developments were reported by the IESC:

- the IESC Chair reported on a meeting that she and a representative of OWS attended with Queensland regulators on 17 December 2013, primarily to discuss the role of the IESC and its provision of advice function; and
- Professor Simmons updated members on a science stakeholder workshop that he and Professor Nugegoda attended on 28 January 2014 at the invitation of the Minister for the Environment. The invitation was extended to experts in various science fields to discuss the Australian Government's environmental priorities.

2. Advice on Projects referred by Governments

2.1 NSW regulatory information

At the IESC's invitation, David Harriss and Mitchell Isaacs from the NSW Office of Water and David Kitto from the NSW Department of Planning and Infrastructure provided members with an overview of the NSW regulatory system in relation to coal seam gas and coal mining.

2.2 Spur Hill Underground Coking Coal Project, NSW (Gateway Stage)

The New South Wales Mining and Petroleum Gateway Panel requested the IESC's advice in relation to the Spur Hill Underground Coking Coal Project, NSW. The proposed project is a new underground coal mining operation with production of 8 Mtpa over 25 years. The proposed project is located east of Denman and south-west of Muswellbrook in the Upper Hunter Valley, NSW.

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This is the first referral to the IESC as part of the newly established Gateway Process in New South Wales, as the proposed project is located on strategic agricultural land. The Gateway Stage occurs prior to lodgement of a development application and Environmental Assessment.

The IESC recognised and discussed that the information provided at the Gateway Stage in the Application for a Gateway Certificate addressed specific criteria and does not contain the level of detail and analysis that would be expected as part of a development application. Therefore, the focus of the IESC's advice was to provide an overview of potential impacts as a result of the proposed project and suggest future studies that could be completed as part of an Environmental Assessment.

Matters of interest to the IESC included:

- consideration of changes to the surface water and groundwater regime as a result of the proposed project, in particular the interactions between the Hunter River, Hunter River Alluvium and Permian porous aquifers;
- potential subsidence related impacts and the potential for vertical connectivity as a result of longwall mining; and
- suggested future requirements for a detailed site water balance.

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.

2.3 Bulga Coal Optimisation Project, NSW (Preliminary Documentation)

The Commonwealth regulator requested the IESC's advice in relation to the Bulga Coal Optimisation Project, NSW, at the Preliminary Documentation stage. This documentation was available for public comment from 17 December 2013 until 9 January 2014.

The proposed project is an extension to an existing open cut mining operation in the Bulga Coal Complex, located in the Sydney Basin. The proposal is estimated to produce 175 Mt and is located 12 kilometres southwest of Singleton, between Bulga and Broke in the Upper Hunter Valley, NSW.

Matters of interest to the IESC included:

- Potential impacts as a result of the proposed increased discharge into Loders Creek;
- Measures to manage, mitigate and monitor the surface and groundwater contamination risks posed by the final void landform; and
- Potential impacts to surface and groundwater interactions, particularly during low rainfall periods.

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

2.4 Moranbah South Coal Project, QLD (Supplementary EIS)

The IESC was referred the Moranbah South Coal Project, QLD, for advice to the Queensland Department of Environment and Heritage Protection and to the Commonwealth regulator. The project is at the Supplementary EIS stage.

The proposed project is for a new underground coal mine, immediately south of the town of Moranbah in the Bowen Basin, approximately 150 kilometres south-west of Mackay. This proposal is estimated to have a production of 18 Mtpa. The proposed mine site is located in the Isaac River Catchment, which is part of the Fitzroy River catchment.

Matters of interest to the IESC included:

- cumulative impacts;
- regional and local geological structures (faults and fractures) and their potential influence on groundwater flow;
- groundwater model parameters;
- subsidence related impacts to surface water and interconnectivity with groundwater; and
- monitoring and management of mine affected water.

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

3. Communications

3.1 Information Guidelines

The OWS provided the IESC with a summary of the feedback received from regulators on the revised draft Information Guidelines.

The IESC noted that the Information Guidelines would be reviewed in light of the feedback received, and that a final draft would be provided to the IESC for endorsement at its meeting in April 2014.

The IESC suggested that there may be value in OWS seeking comment on the draft Information Guidelines from Commonwealth science agencies, such as the CSIRO and Bureau of Meteorology.

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4. Bioregional Assessments

4.1 Bioregional Assessment Programme Progress

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

- a mention of the continued work by the South Australian Government on the relevant groundwater model for the Pedirka subregion;
- an update on technical workshops and stakeholder meetings held since the previous meeting;
- an update on development of an Indigenous engagement strategy; and
- the expected utilisation by the Bioregional Assessment Programme of the research deliverables being produced by the National Chemicals Assessment project.

The IESC noted that a half-day Bioregional Assessments workshop would be scheduled for the March IESC meeting to discuss the sub-methodologies currently under development to enact the agreed methodology for bioregional assessments of the potential impacts of coal seam gas and coal mining development on water resources.

5. Research

5.1 Update on Research Programme

The IESC provided further comments and agreed on the proposed clearance and publication process for four background reviews, namely bore integrity; co produced water and its impact on aquatic ecosystems; subsidence and coal seam gas; and hydraulic fracturing.

The IESC noted that another two background reviews— subsidence and coal mining, and aquifer connectivity in key coal basins —would be considered at its March 2014 meeting.

The IESC noted OWS's update on the status of knowledge projects and the proposed approach for new research projects.

5.2 National assessment of chemicals associated with coal seam gas extraction

Dr Dirk Mallants, CSIRO and Dr Sneha Satya, National Chemicals Notification and Assessment Scheme, presented on the methodology for assessing the movement of chemicals through the natural environment as part of the *National Assessment of Chemicals Associated with Coal Seam Gas Extraction* research project.

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6. Close and other business

6.1 Forward planning agenda

The IESC considered the forward agenda and discussed possible topics for consideration at the March 2014 meeting.

Close of Meeting

The Chair thanked everyone for their contributions to the meeting.

Next Meeting

The next meeting will be held over three days on 12-14 March 2014 in Canberra and will include a half-day Bioregional Assessments workshop.

The meeting closed at 4.30pm on 6 February 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 | 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 service provider for research projects. | No actual, potential or perceived conflict of interest exists and Craig participated fully in the IESC meeting. The reason for the decision is that there will be no funding decisions on research at this meeting, therefore there is not a conflict. |