

**MINUTES – Meeting 7
18-19 July 2012**

Members Dining Room, Old Parliament House, Canberra

Attendance and Apologies

IN ATTENDANCE

Professor Craig Simmons (Chair)
Emeritus Professor Peter Flood
Ms Jane Coram
Professor John Langford (until 10am day 2)

APOLOGIES

Associate Professor David Laurence
Professor Chris Moran

SECRETARIAT AND SUPPORT STAFF

Suzy Nethercott-Watson
Malcolm Forbes
Bernadette O’Neil
Lyn Chapman
Caryn Scott
Milica Milanja

GUESTS AND OTHER DEPARTMENTAL STAFF

Fiona Beynon Office of Water Science	Pamela Finger (Day 2) Office of Water Science
Peter Baker (Day 1) Office of Water Science	Peter Cotsell Office of Water Science
Kate Bayliss Office of Water Science	Kelly Strike (2.1, 2.3, Day 2) Office of Water Science
Susan Ferguson (2.2, 2.4-2.6, Day 2) Office of Water Science	Emily Turner Office of Water Science
Frances Knight (Agenda 2.1) Environment Assessment and Compliance Division, DSEWPaC	Emma Cully (Agenda 2.1, 2.5) Environment Assessment and Compliance Division, DSEWPaC
Andrew Skeat (Agenda 2.1) Great Barrier Reef Marine Park Authority	Adam Smith (Agenda 2.1) Great Barrier Reef Marine Park Authority
Kim Edwards (Agenda 2.2) Environment Assessment and Compliance Division, DSEWPaC	Justin Keast (Agenda 2.3, 2.4) Environment Assessment and Compliance Division, DSEWPaC
Lisa Van Vucht (Agenda 2.5, 2.6) Environment Assessment and Compliance Division, DSEWPaC	David Calvert (Agenda 2.1) Environment Assessment and Compliance Division, DSEWPaC
Ross McKinney (Agenda 2.2, 2.3, 2.4) Environment Assessment and Compliance Division, DSEWPaC	

**Interim Independent Expert Scientific Committee on Coal Seam Gas and Coal Mining
Minutes – Meeting 7, 18-19 July 2012**

The meeting commenced at 9.00am.

Welcome and introductions

The Chair welcomed committee members, the Secretariat provided by the Office of Water Science (the Office) and departmental staff, and noted the apologies received from Professor Chris Moran and Associate Professor David Laurence.

1. Standing items

1.1. Conflicts of Interest

Before the meeting commenced committee members completed the Meeting Specific Disclosure of Interests and no determinations were recorded.

During the course of the meeting, Professor John Langford declared a possible conflict of interest – Professor Langford’s trust may at some point apply to DSEWPaC for a grant.

1.2. Acceptance of minutes from previous meeting

The content of the minutes for Meeting 6 were discussed and endorsed without change. The Chair signed off the minutes as a true and accurate record of the previous meeting.

1.3. Action items report

Ms Nethercott-Watson spoke to the Action Items list. The completed items were noted and other items were referred to agenda items for discussion later in the meeting.

1.4. Out-of-Session decisions

No out-of-session decisions were recorded for the period between meetings.

1.5. Correspondence

The Secretariat provided information on correspondence received. The correspondence received and action taken was noted.

1.6. Communications

The Media Analysis for the period 22 June 2012 to 17 July 2012 was noted.

2. Advice on Projects referred by Governments

The committee, in considering the projects referred for their advice and foreseen by government agencies, discussed the potential cumulative developments in the Galilee Basin and the continued development of coal mines and coal seam gas in the Bowen Basin. The committee agreed that the Minister should be advised that given the scale of proposed developments and potential cumulative impacts, bioregional assessments in the Galilee Basin associated with the Lake Eyre Basin should be extended to the east to encompass the eastern headwaters of the Burdekin River. Such an extension would ensure that Great Artesian Basin issues were covered as well as issues in the Burdekin catchment. Similarly, the committee agreed that assessment of cumulative impacts in the Bowen Basin would be improved if the Fitzroy River catchment was also incorporated as a priority area for bioregional assessment. The committee noted, however, that existing priorities are likely to tax capabilities to undertake bioregional assessments in all priority areas, let alone additional areas identified. The committee suggested that the Office may need to subdivide regions to ensure timely consideration of cumulative impacts of referred projects.

To support the provision of robust advice, the committee agreed that a risk based assessment of the impact on water resources at both the local and regional level be provided for each Project.

This assessment would include, but not be limited to:

- a) details of the measured hydro-geological data, and model parameters, uncertainties, and confidence/ reliability;
- b) a site and regional water balance which provides basin and catchment scale context for the proposed action;
- c) surface water and groundwater quantity and quality fluxes, including impacts of the proposal on the water resource, water balance and solute balance and their implications to vulnerable assets locally and regionally;
- d) regional cumulative impacts (covering surface water, groundwater, geomorphological, hydrological and ecological impacts); and
- e) mitigation and management measures to address these identified risks appropriately.

Any proposed models should also be peer reviewed and publicly released.

To enable these requirements to be included in future proposals the committee agreed that it would be desirable to develop a checklist , using a leading practice example developed from an existing case study, outlining the information requirements for future requests. These could be incorporated into the Information Guidelines currently being developed.

Action Arising

180712-01 Action: The Office in conjunction with the Committee to create a checklist outlining the information requirements for future requests. This could be incorporated into the information guidelines.

**2.1. Hancock Prospecting Pty Ltd – Alpha Coal Project – Mine and Rail Development
(Approval conditions)**

The Hancock Prospecting Pty Ltd – Alpha Coal Project – Mine and Rail Development was discussed and a draft advice was prepared. The advice was agreed to by the committee and will be published separately on the committee's website.

2.2. Centennial Coal Clarence expansion, NSW (Referral)

The Centennial Coal Clarence expansion was discussed and a draft advice was prepared. This will be circulated out of session for committee approval.

The advice will be published separately on the committee's website.

2.3. Anglo Coal (Foxleigh) Pty Ltd/Mining/Middlemount/QLD/Foxleigh coal Mine Extension (Draft Assessment documentation)

The Foxleigh Coal Mine extension was discussed and a draft advice was prepared. This will be circulated out of session for committee approval.

The advice will be published separately on the committee's website.

2.4. Middlemount coal/Middlemount Coal Mine (Approval conditions)

The Middlemount Coal Mine was discussed and a draft advice was prepared. This will be circulated out of session for committee approval.

The advice will be published separately on the committee's website.

2.5. Santos Future Gas Supply Area project, Surat Basin, Qld (Terms of Reference)

The Santos Future Gas was discussed and a draft advice was prepared. This will be circulated out of session for committee approval.

The advice will be published separately on the committee's website.

2.6. Arrow Bowen Gas Project, Bowen Basin Qld (Terms of Reference)

**Interim Independent Expert Scientific Committee on Coal Seam Gas and Coal Mining
Minutes – Meeting 7, 18-19 July 2012**

The Arrow Bowen Gas Project was discussed and a draft advice was prepared. This will be circulated out of session for committee approval.

The advice will be published separately on the committee's website.

3. Presentation from Chair of Bioregional Assessment Methodology

Dr Carol Couch, Chair of the Bioregional Assessment Methodology Panel, joined the meeting to discuss the Bioregional Assessment Methodology.

Dr Couch provided the committee with an overview of the development of the bioregional assessment methodology (BRAM) which covered the structure of the methodology being drafted. The report is on target to be provided for peer review by the end of July.

The committee agreed that bioregional assessment methodology is the underpinning scientific framework and guidance to conduct bioregional assessments. They will inform the committee through a scientific analysis of the ecology, hydrology and geology of a bioregion with explicit assessment of the potential direct and indirect impacts of coal seam gas (CSG) and coal mining development on water resources. Bioregional assessments will focus on the impacts on water resources. For potential impacts to be assessed the committee noted that impacts must be mediated through changes in water resource requirements or dependencies of assessed assets or receptors. BRAM will guide the analysis of potential direct, indirect and cumulative impacts on water resource-dependent receptors that can be assessed at a regional scale. BRAM is not a development-specific environmental impact assessment but does result in bioregional assessments that can inform development-specific assessment.

A bioregion is defined and bounded by one or several applicable concepts including catchments, coal resource basins, and management boundaries. The committee noted that not all potential impacts may occur within the bounds of the bioregion and such impacts should be assessed. For example changes in water levels may positively or negatively impact irrigation or environmental needs downstream of the portion of a catchment contained within a bioregion.

The committee noted that BRAM framework involves five phases of activity including: 1. Assembling contextual information, 2. Model-data analysis, 3. Impact analysis, 4. Risk analysis, and 5. Outcome summary. These phases will guide and organize the overall assessment. However, specific methods and workflows will vary between bioregional assessments in relation to the availability of existing data, information and fit-for-purpose models. Through assembling regional-scale data and information, gaps in data, information and models necessary to fully accomplish best practice may be evident. It is anticipated that data, information or models may not currently be available to implement BRAM at a full level of best practice. An important consideration is the degree to which resources are available to fill gaps within the timeframe of an

**Interim Independent Expert Scientific Committee on Coal Seam Gas and Coal Mining
Minutes – Meeting 7, 18-19 July 2012**

assessment. The committee noted that BRAM provides that all data, information, models and associated workflows are archived and documented such that analyses can be replicated by third parties.

The committee discussed the timeframe for completing a bioregional assessment noting that it can vary in relation to the funding provided, status of existing data, information and models and acceptable levels of uncertainty in assessment outcomes or best practice performance. The conduct of a single bioregional assessment requires the establishment and implementation of a program of work that could span up to three years depending on whether new data or models are acquired or developed. Consequently, the program of work encompassed within a bioregional assessment will vary in relation to choices regarding funding and scheduling of activity across potentially concurrent bioregional assessments.

Technical and scientific capability required includes a broad range of disciplines such as unconventional gas and coal geology, hydrogeology, hydrology, ecology, social science, and specialities in impact and risk assessment. The committee noted that work should be supported by spatial analysts, data management, reporting and communications specialists. Organizations undertaking the assessments should have program management in place to assure internal monitoring and reporting of performance, and coordination with partnering capability providers, regional stakeholders, and local, state, and Commonwealth agencies.

The committee noted the presentation and thanked Dr Couch for her presentation and guidance in chairing the group of scientists who drafted the BRAM. The committee agreed that the draft BRAM should be peer reviewed before it comes back to the statutory committee for its consideration. The committee requested that members be kept informed of the report's progress.

4. Future Committee Business

The committee discussed and noted the future projects that are likely to be referred to the committee for advice.

5. Update on Projects

5.1. Update on management and resourcing

The Office provided an update on the progress of the Bioregional Assessment projects, knowledge projects and deferred future projects. The committee indicated that they found the information useful and requested that a similar update on projects be provided at all future meetings.

**Interim Independent Expert Scientific Committee on Coal Seam Gas and Coal Mining
Minutes – Meeting 7, 18-19 July 2012**

The committee requested the Office to ensure that all projects that are receiving funding are included on the list when it is presented at future meetings.

Action Arising

180712-02 *Action: Secretariat to add 'Update on Projects' as a standing agenda item*

180712-03 *Action: Office to update the project overview document*

6. Other business

The committee commended the Office on its work over the last six months and discussed how the structure of meetings has evolved since its inception. While initial work centred on the development of a framework and operating procedures, and on approvals of research projects, there is now a defined agenda of standing items and a greater focus on the quality of project advice.

Next Meeting

The next meeting will be held on 29-30 August 2012 in Canberra (venue to be confirmed) and will focus on providing project advice.

Meeting closed at 12.30pm

Minutes confirmed as true and correct:

Professor Craig T. Simmons
Committee Chair

15 November 2012