

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Meeting 65, 4-7 November 2019**

**MINUTES
Brisbane, QLD**

ATTENDANCE AND APOLOGIES

IN ATTENDANCE

Dr Chris Pigram (Chair)
Professor Wendy Timms
Professor Jenny Davis
Associate Professor Rory Nathan
Dr Jenny Stauber
Dr Andrew Boulton
Dr Catherine Moore

APOLOGIES

Professor Craig Simmons

OFFICE OF WATER SCIENCE

Peter Baker
Petah Rhynehart
Carol Nelson
Taysha le Compte (Items 1, 2.1, 3.3)
Kelly Strike (Items 2.2, 3.3)
Sarah Taylor (Items 1.4 - 1.8, 2.3, 3.3)
Mio Kuhnen (Items 1.4 - 1.8, 2.3, 3.3)
Carl Zimmermann (Day 2 Item 2.2)

INVITED GUESTS

Chris Loveday, Queensland Department of Environment and Science (Item 3.3)
Clancy Mackaway, Queensland Department of Environment and Science (Item 3.3)

The meeting commenced at 2.30pm on Monday 4 November 2019.

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.

The Chair welcomed the reappointment of Professor Wendy Timms and Professor Craig Simmons as IESC members and congratulated Dr Catherine Moore on her appointment as an IESC member and welcomed her to the Committee.

1.1 Acknowledgement of Country

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

1.2 Disclosure of Interests

Before the meeting commenced, Committee members completed the Meeting Specific Declaration of Interests and a project advice specific declaration for the Moranbah North Extension Project, the Maxwell Underground Coal Mine Project and the Russell Vale Revised Underground Expansion Project.

Details on disclosure of interests is at Attachment A.

1.3 Confirmation of Agenda

The Committee endorsed the agenda for Meeting 65.

1.4 Confirmation of Out-of-Session decisions

The Committee noted that:

- advice on the Mangoola Coal Continued Operations Project and the Dendrobium Mine Extension Project was provided to the regulator and published in accordance with agreed timeframes.
- minutes of the Committee's sixty-fourth meeting on 1-3 October were agreed out-of-session and published.

1.5 Correspondence

The Committee noted the status of correspondence to 17 October 2019.

1.6 Action Items

Ongoing items were noted and an update was provided on the timing of completion.

1.7 Forward Planning Agenda

The Committee noted the forward planning agenda.

It was agreed the next meeting be scheduled for 11-12 December 2019 in Canberra.

1.8 Environmental Scan

Committee members and secretariat reported back on developments in recent months, including:

- appointment of Dr Catherine Moore as an IESC member;
- reappointment of Professor Wendy Timms and Professor Craig Simmons as IESC members;
- Chair's meeting with APPEA CEO Mr Andrew McConville, on 8 October; and
- invitation from the Independent Reviewer - EPBC Act Review, Professor Graeme Samuel AC to meet with the Committee.

2. Advice on Projects referred by governments

2.1 Moranbah North Extension Project

Moranbah North Mine is an operating longwall coal mine located approximately 7 kilometres north of Moranbah township in central Queensland. This proposed project involves extending mining operations into an area to the east of the current mine and will require a new Mining Lease to proceed. The

proposed project will target the Goonyella Middle Seam and mining will be at a maximum production rate of 12 million tonnes per annum of run-of-mine coal. The proposed project will extend the life of the mine by approximately 16 years. Mining will be undertaken using the existing mine portals and drifts to gain underground access as well as using existing surface infrastructure. No upgrades to the infrastructure are required.

Key potential impacts from this project are:

- damage to the coal seam gas (CSG) wells as a result of subsidence impacts. This damage may release residual methane into the overlying geological formations and possibly to the surface, potentially impacting surface water quality. There is also potential for this damage to increase hydraulic connections between aquifers;
- subsidence impacts altering the topography of the project area, including localised ponding and changes to surface runoff patterns (including sediment movement), streamflow regimes and overbank flooding; and
- cumulative impacts to those from previous and current CSG development and coal mines on flow regimes, overbank flooding and water-dependent ecosystems, with possible repercussions for the Isaac River.

Consistent with the *Environment Protection and Biodiversity Conservation Regulations 2000*, advice will be published on the IESC's website within 10 business days of being provided to the regulators.

2.2 Maxwell Underground Coal Mine Project

The proposed Maxwell project is an underground coal mine extension to be developed approximately 16 kilometres south-southwest of Muswellbrook in the Hunter Valley, NSW. The proposed project is for underground mining of four coal seams using bord-and-pillar and longwall mining. Up to 8 million tonnes of run-of-mine coal is proposed to be extracted annually over an operational life of 26 years. Voids from the existing Maxwell mine will be used for water storage.

Key potential impacts from this project are:

- groundwater drawdown, with peak drawdown of the watertable of approximately 10 metres and a recovery period over centuries;
- reduced flow and increased erosion and sedimentation in local watercourses, due to subsidence of up to 5.6 metres and surface cracking between 25 and 300 mm wide predicted above the mining area;
- poorer groundwater and surface water quality should seepage occur from the rejects, tailings and brine in the East Void;
- decreased surface water quality from potential overflows of mine-affected water from the Rail Loop Dam and Access Rd Dam during flood events, or brine and other runoff from the Mine Entry Dam and Savoy Dam;
- impacts to riparian zone vegetation and listed ecological communities, although their groundwater-dependence has not been determined; and
- cumulative impacts on surface and groundwater resources, water quality and ecological communities.

Consistent with the *Environment Protection and Biodiversity Conservation Regulations 2000*, advice will be published on the IESC's website within 10 business days of being provided to the regulators.

2.3 Russell Vale Revised Underground Expansion Project

The proposed Russell Vale Colliery Underground Expansion Project is an extension to the existing Russell Vale Colliery, and is located approximately 8 kilometres north of Wollongong, New South Wales. The current proposal is for bord-and-pillar extraction east of Cataract Reservoir, involving only first workings in the Wongawilli Seam extracting up to 3.7 million tonnes of run-of-mine coal over a five-year period.

Key potential impacts from this project are:

Under a “negligible risk” scenario:

- long-term impacts to groundwater levels and ground and surface water quality post-mining predominately due to discharge from adits that may occur in perpetuity.

Under a “worse case” scenario, in addition to the above impact:

- ground movement with fracturing near the surface resulting in:
 - irreversible changes to EPBC Act-listed swamps;
 - loss of surface waters from streams or storages within the Metropolitan Special Area; and,
 - degradation of in-stream and riparian environments.

Consistent with the *Environment Protection and Biodiversity Conservation Regulations 2000*, advice will be published on the IESC’s website within 10 business days of being provided to the regulators.

3. Other Business

3.1 Explanatory Notes Symposium

The Committee discussed the proposed Explanatory Notes Symposium, comprising open and panel discussion together with Masterclasses on the Explanatory Notes, to be held in Queensland, in June 2020 with invitations to be extended to consultants and proponent companies.

Following suggested amendments to the draft agenda, the Committee agreed on actions to be taken by OWS on the scope, timing and concept of the Symposium, including, but not limited to:

- Committee leads on Masterclass sessions agreed;
- a pre-briefing be held for attendees the night before the Symposium;
- Masterclasses to be held at the commencement of the meeting the following day; and
- the Symposium be held for a maximum of one and a half days.

3.2 Environmental Tracers

The Committee discussed the draft document and provided final comments. The document will be sent to the Chair for approval.

3.3 Queensland Regulators Roundtable

Queensland’s regulators were invited to an informal roundtable discussion with the Committee to seek their views on the IESC Information Guidelines and Explanatory Notes together with their general views on structure and format of IESC advice.

The Committee provided updates on IESC activities since their last meeting with the regulators in October 2018 and advised the regulators of the Explanatory Notes Symposium to be held in June 2020, in Queensland.

The Committee and regulators also discussed the importance of interacting with the EPBC Act Independent Reviewer on groundwater issues and the assessment process.

3.4 Frequently Asked Questions

This item will be addressed out of session and discussed at the next IESC Meeting to be held in Canberra on 11-12 December 2019.

Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

The Committee also wished to thank Carl Zimmermann from the Department of the Environment and Energy for his work and support of the Committee up to this meeting prior to his move into a new role.

The meeting closed at 4.45 pm on Thursday 7 November 2019.

Next Meeting

The next meeting is scheduled for 11-12 December 2019, in Canberra, ACT.

Minutes confirmed as true and correct:

Dr Chris Pigram AM, FTSE

IESC Chair

26 November 2019

Item(s)	IESC Member	Disclosure	Determination
2.1	Professor Wendy Timms	I consider that there may be a possible conflict of interest in relation to project advice arising from a small direct contract through Deakin Uni that I completed for Moranbah North mine site (Anglo American), including 1 day on site, in January 2018.	It was considered that there was no perceived, actual or potential conflict of interest and Professor Timms participated fully in the meeting.