

**Independent Expert Scientific Committee on Coal Seam Gas and  
Large Coal Mining Development (IESC)  
Meeting 57, 6-8 November 2018**

**MINUTES  
Canberra**

**Attendance and Apologies**

IN ATTENDANCE

Dr Chris Pigram (Chair)  
Professor Craig Simmons  
Dr Jenny Stauber  
Dr Andrew Boulton  
Professor Wendy Timms  
Professor Joan Esterle  
Associate Professor Rory Nathan  
Professor Jennifer Davis (Days 1 & 2)

APOLOGY

Professor Jennifer Davis (Day 3)

SECRETARIAT AND SUPPORT

Tia Stevens (Day 1)  
Jason Smith  
Peter Baker  
Jo Brennan  
Benjamin Klug  
Elesha Curran

STAFF OF THE DEPARTMENT OF THE ENVIRONMENT AND ENERGY

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| Kylie Jonasson (Day 1 Item 2.1)<br>Biodiversity Conservation Division | Mitchel Bouma (Items 1, 2.1 & 3.1)<br>Office of Water Science          |
| Mio Kuhnen (Items 1, 2.1, 2.3 & 3.1)<br>Office of Water Science       | Natasha Armerasinghe (Items 2.2, 2.3 & 3.1)<br>Office of Water Science |
| Les Betland (Item 2.2)<br>Office of Water Science                     | Sarah Taylor (Item 2.3)<br>Office of Water Science                     |
| Carl Zimmermann (Item 2.3)<br>Office of Water Science                 | Anthony Swirepik (Item 3.1)<br>Geological Bioregional Assessments      |

## INVITED GUESTS

Christopher Loveday (Item 3.1)  
Queensland Department of Environment and  
Science

The meeting commenced at 9.00am on Tuesday 6 November 2018.

### **1. Welcome and Introductions**

The Chair, Dr Chris Pigram, 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 Disclosure of interest**

Before the meeting commenced, Committee members completed the Meeting Declaration of Interests and an advice specific declaration of interest for the;

- Maxwell Coal Mine Project, Malabar Coal Limited;
- Middlemount Coal Mine Western Extension Project, Middlemount Coal Pty Ltd; and
- Vickery Extension Project, Vickery Coal Pty Ltd.

No actual, potential or perceived conflicts of interest were recorded for this meeting.

#### **1.3 Confirmation of agenda**

The Committee endorsed the agenda for Meeting 57.

#### **1.4 Action items**

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

#### **1.5 Confirmation of out-of-session decisions**

The IESC noted that:

- advice on the Olive Downs Project was finalised consistent with the Committee's deliberations and provided to the decision makers;
- the minutes of the Committee's fifty-sixth meeting on 3 – 4 October 2018 were agreed out of session and published; and
- the "Roles of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development and the Office of Groundwater Impact Assessment in Environmental Assessments" was endorsed by the Chair out of session.

#### **1.6 Correspondence**

The Committee noted the status of correspondence to 19 October 2018.

#### **1.7 Forward planning agenda**

The Committee noted the forward planning agenda. It was agreed that the next meeting be scheduled for 30 – 31 January 2019 in Canberra.

#### **1.8 Environmental scan**

The Office of Water Science provided an update on developments since the October meeting, including:

- release of the Environment and Communications References Committee report on the adequacy of the regulatory framework governing water use by the extractive industry; and
- request for the reconsideration of Bylong Coal Project under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

## **2. Advice on projects referred by governments**

### 2.1 Maxwell Coal Mine Project, Malabar Coal Limited

The proposed Maxwell project is an underground coal mine extension to be developed in the Hunter Valley, NSW. The project involves underground mining of four coal seams, the shallowest seam to be mined using bord and pillar methods with the deeper three coal seams to be longwall-mined. Coal will be handled at the existing Maxwell infrastructure site with coal rejects, tailings and brine to be deposited within the existing open cut East Void.

The IESC reviewed and discussed the information provided, and considered the key potential impacts of the proposed project to be:

- long-term changes, which are severe and irreversible, to Permian hard rock aquifers and surface watercourses, due to subsidence fracturing;
- changes to groundwater levels in alluvial aquifers due to leakage through shallow, hard rock fractures into hard rock aquifers;
- changes to surface water flow regimes and an increase in sediment deposition (particularly in Saddlers Creek and its tributaries) due to surface effects of subsidence, the extent of which is unable to be determined as a surface water assessment was not included in the Gateway Certificate Application;
- groundwater drawdown impacts to groundwater-dependent ecosystems, the extent of both are uncertain due to the limited information; and
- decreased groundwater and surface water quality should seepage occur from the rejects, tailings and brine in the East Void.

### 2.2 Middlemount Coal Mine Western Extension Project, Middlemount Coal Pty Ltd

The Middlemount Coal Mine Western Extension proposes expansion of an existing approved open cut coal mine in Queensland. The proposed project will extend the current mine life by six years and recover an additional 21 million tonnes of metallurgical and thermal coal. The proposal expands on the EPBC Act approval 2010/5394 and EPBC approval 2016/7717.

The IESC reviewed and discussed the information provided, and considered the key potential impacts of the proposed project to be:

- groundwater interaction/leakage from the final voids due to probable fracturing associated with the Jellinbah Fault that lies close to the eastern boundary of both voids;
- indirect impact as a result of groundwater drawdown to at least two wetlands (extents and areas unknown) in adjoining property close to the northern boundary of the proposed project;
- changes to water quantity and quality within the floodplain from the two final voids as a result of potential overtopping and leakage into or from groundwater. There is also a risk of density-driven groundwater flow arising from salinity build-up in the final voids;
- changes to surface water quality as a result of uncontrolled releases from site water management storages and potential impacts to downstream aquatic ecosystems and users; and

- direct removal of an approximately 0.75 ha wetland and surrounding regulated vegetation defined in Queensland as being of High Ecological Significance.

### 2.3 Vickery Extension Project, Vickery Coal Pty Ltd

The Vickery Extension Project is a proposed extension to the Vickery Coal Mine in the Gunnedah Coalfield in northwest New South Wales. The Vickery Coal mine received final approval from the state government in 2014; however, no works have commenced at the site since 2014. The proposed project will increase the mine disturbance area, the size of the Western Emplacement (waste rock emplacement), the volume of coal mined and the production rate (the currently approved rate of 4.5 million tonnes per annum (Mtpa) will increase to an average rate of 7.2 Mtpa) at the Vickery Coal Mine. The proposed project will decrease the number of final voids in the landscape to two (currently five historical voids exist with three voids proposed for the approved mine) and will not include mining previously planned at the Blue Vale pit.

The IESC reviewed and discussed the information provided, and considered the key potential impacts of the proposed project to be:

- groundwater drawdown from mining operations, primarily in the Maules Creek Formation (part of the Gunnedah-Oxley Basin Murray-Darling Basin Groundwater Source in the Murray-Darling Basin Porous Rock Groundwater Source Water Sharing Plan) that may affect groundwater availability and aquifer interactions; and
- groundwater drawdown mainly associated with the proposed water supply borefield in the Alluvial Groundwater Source (located in Zone 4 of the Upper and Lower Namoi Groundwater Sources Water Sharing Plan) that may affect groundwater availability and the dynamics of surface water-groundwater interactions.

Consistent with the EPBC Regulations, advice will be published on the IESC's website within 10 business days of being provided to the regulators.

## **3. Other Business**

### 3.1 Geological and Bioregional Assessment Update

Mr Anthony Swirepik from the Department of the Environment and Energy provided an update on the Geological and Bioregional Assessment Program.

#### **Close of Meeting**

The Chair thanked everyone for their contribution to the meeting.

The meeting closed at 2.30pm on Thursday 8 November 2018.

#### **Next Meeting**

The next meeting is scheduled for 30 – 31 January 2019.

Minutes confirmed as true and correct:

Dr Chris Pigram

IESC Chair

17 November 2018