Independent Expert Scientific Committee on Unconventional Gas Development and Large Coal Mining Development (IESC)
Meeting 115, 15-16 May 2025

MINUTES
Videoconference

ATTENDANCE AND APOLOGIES

IN ATTENDANCE
Dr Chris Pigram (Chair)
Dr Andrew Boulton
Professor Jenny Davis
Dr Jenny Stauber
Dr Juliette Woods
Associate Professor Phil Hayes
Professor Rory Nathan
Professor Wendy Timms

INVITED GUESTS

Item 3.1

Birte Moser, PhD Candidate – National Centre for Groundwater Research and Training
College of Science and Engineering, Flinders University

OFFICE OF WATER SCIENCE (OWS)
Note: OWS attendees include those with full or partial attendance.

Ben Klug
David Cameron
Dylan Stinton
Frances Knight
Isabelle Francis
Jason Smith
Dr Laura Richardson
Mersey Houston
Mick Hannan

1. Welcome and Introductions

The Chair acknowledged the traditional owners, past and present, on whose lands this meeting was held, and welcomed members of the Independent Expert Scientific Committee on Unconventional Gas Development and Large Coal Mining Development (IESC) to the meeting.

1.1 Attendance and Apologies

IESC members in attendance and apologies are recorded above.

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This initiative is funded by the Australian Government Department of Climate Change, Energy, the Environment and Water

1.2 Disclosure of Interests

Committee members were invited to make disclosures. Committee members also completed a Meeting Declaration of Interests before the meeting commenced. 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 115.

1.4 Confirmation of Out-of-Session Decisions

The Committee noted that:

- Minutes of the Committee's 114th meeting on 8 April 2025 were agreed out-of-session and published on the IESC website on 17 April 2025.

1.5 Correspondence

The Committee noted the status of correspondence to 28 April 2025.

1.6 Action Items

Ongoing items were noted, and updates were provided on the timing of completion.

1.7 Forward Planning Agenda

The Committee noted the forward planning agenda.

It was agreed that the next meeting be scheduled as a videoconference on 18 – 19 June 2025.

1.8 Environmental Scan

The OWS reported on recent events.

2. Advice on Projects referred by governments

2.1 Rolleston Coal Mine Continuation Project

The Rolleston Coal Mine Continuation Project (the 'project') is a proposed extension to the existing Spring Creek open-cut pit within the Rolleston Open Cut Mine (ROC), located 16 km west of the township of Rolleston in the Bowen Basin, Queensland. The project will disturb 592 hectares (ha) of land while continuing to mine northwards on mining leases (ML) 70307 and 70415. It will extract approximately 19 million tonnes (Mt) of thermal Run-of-Mine (ROM) coal per annum.

The project is a continuation of the current open-cut mining activities and includes dewatering and removal of vegetation. The project will use current ancillary infrastructure such as electricity lines, water supply pipelines, water management infrastructure, coal-handling facilities, train load-out facilities, haul roads and rail infrastructure. The project will build some new infrastructure, including a new clean-water diversion drain at the north-western end of the project, and extend the existing Spring Creek pit dewatering pipeline to the north.

The project is in the Comet River catchment in the Fitzroy Basin. Three named creeks run north to south in the ROC: Bootes, Sandy and Meteor creeks. Spring Creek has an existing diversion into Bootes Creek. Two unnamed creeks north of the project area drain into Meteor Creek and eventually into the Comet River. Aldebaran and Canopus creeks also lie north of the project area.

The proponent has identified high- and moderate-potential terrestrial, aquatic and subterranean groundwater-dependent ecosystems (GDEs) along creek lines and within the alluvium and basalt aquifers in, and surrounding, the project area. Species listed as Matters of National Significance (MNES) by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and their habitats occur within the project area: koala (*Phascolarctos cinereus*), squatter pigeon (*Geophaps scripta scripta*), bluegrass (*Dichanthium setosum*) and king bluegrass (*Dichanthium queenslandicum*), along with the Threatened Ecological Community (TEC) Natural Grasslands of the Queensland Central Highlands and northern Fitzroy Basin.

Key potential impacts from this project are:

- clearing of 592 ha of habitat for EPBC-listed species and the Natural Grasslands TEC;
- reduction in alluvial water availability to riparian vegetation communities, especially terrestrial groundwater-dependent ecosystems (GDEs);
- reduction in transient baseflow contributions from drawdown in the Tertiary basalt and Quaternary alluvium to reaches of unnamed creeks 1 and 2 which support high-potential aquatic GDEs;
- groundwater drawdown in Tertiary basalt and Quaternary alluvium reducing water and saturated habitat availability for subterranean GDEs, including stygofauna;
- permanent reduction in alluvial water availability due to the post-closure landform and conditions, mainly impacting Aldebaran, Canopus and Bootes creeks; and
- cumulative impacts to groundwater levels and pressures, receiving surface water quality and flow regimes in ephemeral streams, and water-dependent ecosystems and their biota (including in Albinia National Park) from this project and existing operations, and from other mining complexes.

The IESC has identified areas in which additional work is required to address the key potential impacts, as detailed in this advice. These include:

- Installation of additional monitoring bores and collection of further baseline groundwater data to monitor for drawdown impacts from the project and improve the modelling predictions of project-specific and cumulative drawdown.
- Further groundwater modelling to investigate the influence of vertical hydraulic conductivity and of the Inderi Fault on assessment of potential groundwater impacts.
- Collection of baseline surface water data, including flow regimes and baseflow contributions for all surface water features within and surrounding the project area, to enable detailed impact assessment on surface water resources.
- Collection of sufficient baseline surface water quality data.
- Collection of adequate baseline data on stygofaunal community composition and the condition of other GDEs located within the potential zone of project-specific and cumulative groundwater drawdown.
- Provision of detailed mitigation and monitoring plans for water resources and their assets, along with Trigger Action Response Plans to ensure prompt follow up to any impacts that may occur.

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 Presentation on the Hydraulic and Salinity Evolution of Groundwater-Fed Pit Lakes After Mine Closure

Birte Moser, National Centre for Groundwater Research and Training, presented to the Committee on the transformation of groundwater-fed pit lakes from terminal sinks to throughflow systems following mine closure, highlighting rapid shifts during groundwater recovery and the influence of density-dependent flow, particularly in semi-arid and arid climates.

3.2 Discussion on the Final Scope of the Climate Change Explanatory Note

The Committee reviewed and discussed a final scope and draft Statement of Reasons for the delivery of a Climate Change Explanatory Note.

4. Close of Meeting

The meeting closed at 11:20 am on Friday 16 May 2025.

Next Meeting

The next meeting is scheduled as a videoconference on 18 – 19 June 2025.

Minutes confirmed as true and correct:

Dr Chris Pigram AM, FTSE

IESC Chair

24 May 2025