Independent Expert Scientific Committee on Unconventional Gas Development and Large Coal Mining Development (IESC)
Meeting 116, 18 – 19 June 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 Wendy Timms

APOLOGIES
Professor Rory Nathan

INVITED GUESTS

Item 3.1

Professor Claire Côte, Director, Centre for Water in the Minerals Industry, the University of Queensland.

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

Des Owen, Director
Amelia Lewis
Ben Klug
David Cameron
Dylan Stinton
Francis Knight
Isabelle Francis
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.

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.

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1.3 Confirmation of Agenda

The Committee endorsed the agenda for Meeting 116.

It was agreed that agenda item *'3.2 Presentation: The evolving scope of OGIA's functions and recent research work'* would be deferred to a future meeting of the Committee.

1.4 Confirmation of Out-of-Session Decisions

The Committee noted that:

- minutes of the Committee's 115th meeting on 15-16 May 2025 were agreed out-of-session and published on the IESC website on 30 May 2025;
- advice on the Rolleston Coal Mine Continuation Project was provided to the regulator on 19 May 2025 and published on 30 May 2025; and
- a video arising from the IESC-commissioned research on surveying stygofauna and groundwater microbes was finalised out-of-session and published on the IESC website on 3 June 2025.

1.5 Correspondence

The Committee noted the status of correspondence to 4 June 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 will be held in person, in conjunction with a site visit, during the week of 21 – 25 July 2025.

1.8 Environmental Scan

The OWS reported on recent events.

2. Advice on Projects referred by governments

2.1 Bloomfield Colliery Continuation Project Modification 5

The Bloomfield Colliery Continuation Project Modification 5 (the 'project') is an open-cut coal mine extension located southeast of Maitland and approximately 20 kilometres (km) northwest of Newcastle in the Hunter Valley region, New South Wales (NSW). The proposed modification will include extending mining of the Creek Cut and Workshop Cut over 39 hectares (ha), extracting an additional 5.8 million tonnes (Mt) of Run-of-Mine (ROM) thermal coal. The mine life will be extended from 2030 to 2035. The project will continue to use existing infrastructure, including the water management system, tailings storage in U-Cut and S-Cut South voids, and the Coal Handling and Processing Plant (CHPP). It will also continue to discharge water within the limits of Environmental Protection Licence (EPL) 396.

The project area is adjacent to two third-order streams within the lower Hunter River catchment: Buttai Creek and Four Mile Creek. Elwells Creek is a tributary of Four Mile Creek within the project area which may be impacted by both the Workshop Cut and Creek Cut mining. A 775-m diversion of the creek is proposed to allow mining of the Workshop Cut, and the Creek Cut appears to remove an unspecified portion of its uppermost head waters.

The riparian zone along Elwells Creek and surrounding vegetation include habitat for several species listed by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), including koala (*Phascolarctos cinereus*), swift parrot (*Lathamus discolor*) and large-eared pied bat (*Chalinolobus dwyeri*), which likely use the vegetation for foraging and possibly breeding. Due to current and historical mining

operations, the proponent claims that it is unlikely that terrestrial groundwater-dependent ecosystems (GDEs) in and near the project area are currently supported by groundwater.

Key potential impacts from this project are:

- clearing of 51.69 ha of native vegetation within the proposed project area, including riparian zones and potential terrestrial GDEs, some of which may be used by EPBC Act-listed species;
- changes to flow regimes and water quality from controlled and uncontrolled discharges to the receiving environment; and
- loss of riparian and instream habitat, and potential increased erosion and sedimentation, from diverting Elwells Creek.

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

- Further characterisation of the existing surface water environment, including instream habitats, water quality and ecologically important components of the flow regime of Four Mile and Elwells creeks.This will inform impact assessment of increased discharges to Four Mile Creek and guide appropriate design and operation of the proposed diversion and reinstatement of Elwells Creek.
- Surface water monitoring of Dissolved Organic Carbon (DOC), nutrients and metals/metalloids to inform impact assessment and mitigation measures.
- An updated water balance that includes quantification of increased discharge volumes due to the project, as well as an impact assessment of increased discharges in relation to flow regimes and ecologically important flow components.
- Detailed discussion about proposed mitigation measures for erosion and sedimentation arising from the stream diversion and altered flooding depths and velocities.
- Mapping of potential alluvial extent and shallow groundwater, especially along Elwells Creek, followed by field surveys of any potential GDEs.
- Field collection of baseline data on aquatic biota and instream and riparian habitats along Elwells Creek as well as from Four Mile Creek downstream of its confluence with this tributary.
- A post-audit of the groundwater model, using recent groundwater monitoring data to determine if the model's predictions remain valid or if a model update is required.
- An impact assessment based on the updated conceptualisation of the amended final landform that will address potential changes to groundwater and surface water quality.
- Once further site-specific data have been collected, an impact pathway diagram should be developed to refine the understanding of how and where the project may impact water resources. This will inform further proposed monitoring programs and support development of management plans.
- A thorough assessment of cumulative impacts on water resources from the proposed project with current mining at Bloomfield Colliery and surrounding historical and current operations.

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: Cumulative impacts to water-related environmental values for the northern Bowen Basin

Professor Claire Côte, Director, Centre for Water in the Minerals Industry, the University of Queensland, presented to the Committee on cumulative impacts to water-related environmental values in the northern Bowen Basin.

4. Close of Meeting

The meeting closed at 10:50am on Thursday, 19 June 2025.

Next Meeting

The next meeting is scheduled to be held in person during the week of 21–25 July 2025.

Minutes confirmed as true and correct:

Dr Chris Pigram AM, FTSE

IESC Chair

04 July 2025

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