Wilpinjong Coal Mine - Pit 8 Extension

Application Number: **02742** Commencement Date: **16/01/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Wilpinjong Coal Mine - Pit 8 Extension

1.1.2 Project industry type *

Mining

1.1.3 Project industry sub-type

Coal

1.1.4 Estimated start date *

01/01/2027

1.1.4 Estimated end date *

30/06/2034

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

Background

The proposed Action, the subject of this Referral, involves an extension of open cut mining area and development of supporting infrastructure in the Pit 8 Extension area at the existing Wilpinjong Coal Mine.

The Wilpinjong Coal Mine is an existing open cut coal mining operation located approximately 40 kilometres (km) north-east of Mudgee, within the Mid-Western Regional Local Government Area, in central New South Wales (NSW) (Att 1 - Figure 1 and Att 1 - Figure 2).

Wilpinjong Coal Pty Ltd (WCPL), a wholly owned subsidiary of Peabody Energy Australia Pty Ltd (Peabody), is the owner and operator of the Wilpinjong Coal Mine.

Mining operations at the Wilpinjong Coal Mine are currently approved to extract up to 16 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal until 31 December 2033 in accordance with NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) Development Consent (SSD-6764) (as modified).

Components of the existing Wilpinjong Coal Mine (Att 1 – Figure 2) have previously been referred and/or approved under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Wilpinjong Coal Mine (EPBC 2005/2309) was determined to be 'not a controlled action'. Wilpinjong Extension Project (EPBC 2015/7431) was determined to be 'a controlled action' (controlling provisions of listed threatened species and communities, and water resources), and subsequently approved on 8 August 2017.

WCPL is seeking a modification to Development Consent (SSD-6764) (as modified) to extend mining operations into the Pit 8 Extension area within Exploration Licence (EL) 9399 and develop associated supporting infrastructure and facilities (the Modification).

The Action, that is the subject of this Referral, involves proposed activities within the new surface development footprint area only (i.e. the Action Disturbance Footprint) and is described below.

The Action

The Action would include the following key activities carried out within the Action Area (approximately 190 hectares [ha]):

- open cut mining in the Pit 8 Extension area (approximately 120 ha);
- extraction of approximately 14 million tonnes (Mt) of ROM coal from the Pit 8 Extension area;
- development of ancillary infrastructure to support open cut mining activities for the Pit 8 Extension area;
- realignment of some public infrastructure to facilitate the Pit 8 Extension (e.g. sections of public roads, local, low voltage powerlines and telecommunication services);
- in-pit crushing of waste rock for use as construction and/or stemming material;
- backfilling areas of the Pit 8 Extension and shaping the final landform; and
- development of water management infrastructure (e.g. dams, drains, pumps, pipelines and flood protection bunds) to facilitate mining in the Pit 8 Extension area.

The extent of the Action Area is shown on Figures 3a and 3b (Att 1 – Figure 3a and Att 1 - Figure 3b). The new surface development footprint associated with the Action, located within the Action Area would be approximately 155 ha, which may be refined during the assessment process. The proposed Action is separate from, but related to, the components of the Wilpinjong Coal Mine previously referred and determined to be 'not a controlled action' (EPBC 2005/2309) or determined to be 'a controlled action' and subsequently approved (EPBC 2015/7431).

Activities within the existing/approved surface development footprint of the Wilpinjong Coal Mine, as shown on Figure 2 (Att 1 – Figure 2) are not part of the Action.

For the avoidance of doubt, the Action (which is the subject of this Referral) does not include:

- Components and operations of the existing, approved Wilpinjong Coal Mine, regardless of whether those components or operations have been constructed or commenced.
- Ongoing exploration and geotechnical drilling activities approved or permitted to be carried out under exploration and mining tenements issued under the NSW *Mining Act 1992*, including EL 9399, EL 7091 and EL 6169.
- Initial development activities that may support the Action that involve minor ground disturbance, including but not limited to, surveys and demarcation activities, exploration, archaeological investigations and salvage, environmental and geotechnical investigations, upgrades of existing access roads and installation of temporary buildings and facilities.

In addition, the Action does not include the activities that would be an indirect consequence of the Action but would occur within existing/approved surface development footprint of the Wilpinjong Coal Mine (Att 1 – Figure 2) as these activities would already form part of the existing/approved mining operations and would not represent a material intensification of existing/approved mining operations. Such activities that do not form part of the Action include (but are not limited to):

- production of waste rock and emplacement of waste rock in existing or approved mined out pits/voids of the Wilpinjong Coal Mine;
- use of the existing coal washing, handling and transport facilities;
- temporary stockpiling and reclaiming of waste rock material within the existing/approved surface development footprint of the Wilpinjong Coal Mine;
- use of existing and approved infrastructure and facilities of the Wilpinjong Coal Mine to support the open cut mining activities (including water management infrastructure); and
- coal reject handling and disposal/emplacement within the existing/approved surface development footprint of the Wilpinjong Coal Mine.

The design of the Action is subject to refinement during the detailed design process and preparation of assessment documentation informed by collection of baseline data (e.g. biodiversity surveys), including development of measures to be implemented across the Action Area to mitigate potential impacts on water resources, threatened ecological communities and threatened species habitat.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

No

1.2.4 Related referral(s)

EPBC Number	Project Title
2005/2309	Wilpinjong Coal Mine
2015/7431	Wilpinjong open cut coal mine extension project, NE Mudgee, NSW

1.2.5 Provide information about the staged development (or relevant larger project).

The proposed Action is physically separate from, but related to, the components of the Wilpinjong Coal Mine previously referred and determined to be 'not a controlled action' (EPBC 2005/2309) or determined to be 'a controlled action' and subsequently approved (EPBC 2015/7431). Additional information about the approved Wilpinjong Coal Mine and various approval related documents are available on the Wilpinjong Coal Mine website:

https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine

Conditions are imposed on the Wilpinjong Extension Project open cut mining extensions and associated surface infrastructure through EPBC 2015/7431. These conditions refer to specific conditions in the Development Consent (SSD-6764) related to water, biodiversity, rehabilitation and environmental management.

Activities at the existing Wilpinjong Coal Mine are regulated under an Environmental Management System and associated management plans prepared in accordance with Development Consent (SSD-6764) (as modified) issued under the NSW EP&A Act. The activities within the Pit 8 Extension area would be operated under this Environmental Management System, with appropriate augmentation to mitigation measures and monitoring systems to capture these activities.

WCPL is seeking a modification to Development Consent (SSD-6764) to extend mining operations into the Pit 8 Extension area within EL 9399 and develop associated supporting infrastructure and facilities.

It is noted that the Scoping Letter lodged with the NSW Department of Planning, Housing and Infrastructure (DPHI) also refers to a "Pit 3 Extension area". WCPL is no longer proposing extraction in this area as part of the modification application under the EP&A Act. Mining in the Pit 3 Extension area is not currently in the mid-term mine planning and does not form part of a larger action.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The Action is being referred to the Commonwealth Minister for the Environment and Water for consideration as to whether the Action is a 'controlled action' and requires approval under the EPBC Act (i.e. this Referral).

The following guidelines and policies have been considered of most relevance when preparing this Referral:

- *Significant impact guidelines 1.1 - Matters of National Environmental Significance* (Commonwealth of Australia, 2013).
- *Significant impact guidelines 1.3: Coal seam gas and large coal mining developments - impacts on water resources* (Commonwealth Department of Climate Change, Energy, the Environment and Water [DCCEEW], 2022).

NSW Environmental Planning and Assessment Act 1979

The EP&A Act and the NSW *Environmental Planning and Assessment Regulation 2021* set the framework for planning and environmental assessment in NSW.

In February 2024, WCPL lodged a Scoping Letter with the NSW DPHI that provided a description of the Modification (including the Action) to key State regulatory agencies:

*https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-7480%2120190303T213428.600%20GM*T

Since lodgement of the Scoping Letter, WCPL has also met with DPHI in August 2024 to advise the scale of the proposed Modification has since been reduced.

WCPL is currently preparing a Modification Report to accompany the application to modify Development Consent (SSD-6764). It is expected that the Action, should it be determined 'a controlled action', would be assessed pursuant to the Assessment Bilateral Agreement between the NSW Government and Commonwealth Government.

NSW Biodiversity Conservation Act 2016

The Action Area involves approximately 155 ha of new surface development in the Action Disturbance Footprint (Att 1- Figure 3a and Att 1 - Figure 3b), which may be refined during the detailed design process and preparation of assessment documentation informed by collection of baseline data. Potential impacts to biodiversity would be offset in accordance with the NSW Biodiversity Offset Scheme established under the NSW *Biodiversity Conservation Act 2016* (BC Act).

A Biodiversity Development Assessment Report (BDAR) will be prepared in accordance with the BC Act to determine appropriate avoidance and mitigation measures and the biodiversity offset measures required.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

WCPL has already engaged with, or intends to engage, with a variety of stakeholders, including Commonwealth, State and Local government agencies, infrastructure, and service providers, surrounding mine operators and the local community and Indigenous groups, to gather feedback on the proposed assessment approach, potential impacts and the proposed mitigation and management measures for the Modification (including the Action). Consultation will take place throughout the preparation of the Modification Report, allowing for the concerns and recommendations of relevant parties to be thoroughly considered.

WCPL has already engaged with, or intends to engage, with the following Commonwealth and State government agencies and local Council:

- Commonwealth DCCEEW;
- NSW DPHI;
- NSW DCCEEW;
- Heritage NSW
- NSW Resources;
- NSW Resources Regulator;
- NSW National Parks and Wildlife Service;
- NSW Environment Protection Authority (EPA);
- Transport for NSW (TfNSW); and
- Mid-Western Regional Council.

WCPL has also already engaged with and will continue to engage with, the following additional stakeholders:

- community organisations and businesses;
- Aboriginal stakeholders;
- infrastructure and service providers (e.g. Essential Energy, Telstra, ARTC, etc.); and
- surrounding mine operators.

WCPL will also maintain regular consultation with relevant community stakeholders regarding the Modification (including the Action) and the ongoing existing/approved mining activities at the Wilpinjong Coal Mine, employing the following methods:

- a dedicated website;
- Wilpinjong Coal Mine Community Consultative Committee meetings;
- regular meetings with relevant Registered Aboriginal Parties and Native Title parties;
- monthly 'Have a Chat' sessions that are open to all community members; and
- a community response line.

WCPL has commenced consultation to inform the preparation of an Aboriginal Cultural Heritage Assessment (ACHA) and a Social Impact Assessment.

WCPL's consultation with the Indigenous stakeholders will comply with the NSW Government's *Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH, 2010)*. WCPL's consultation approach is also consistent with DCCEEW (2023) *Interim Engaging with First Nations People and Communities on Assessments and Approvals under the Environment Protection and Biodiversity Conservation Act 1999*, as WCPL is engaging early and often with stakeholders, seeking to ensure cultural safety and build and maintain trust, and providing a variety of mechanisms to receive information and provide feedback throughout the ACHA process.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

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See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint.

Alternatively, email us at privacy@awe.gov.au.

☑ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW

Referring party details

Name	Jon Degotardi

Job title	Approvals Manager
Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com
Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW

Person proposing to take the action details

Name	Jon Degotardi
Job title	Approvals Manager
Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com
Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Details of the compliance and environmental performance history relevant to WCPL is provided below. In the past 18 years, WCPL has not:

- had any approval authorising exploration or production of coal, in any jurisdiction, refused, suspended, cancelled or revoked;
- been subject to prosecution under a provision for any work health and safety legislation;
- had a licence or other authority suspended or revoked under the NSW *Protection of the Environment Operations Act 1997;*
- been convicted of an offence under a provision of the NSW *Protection of the Environment Operations Act 1997*; or
- been issued penalty notices for an offence under relevant NSW legislation.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

WCPL has a strong record of complying with its environmental obligations under the previous Project Approval 05-0021 (as modified) and current Development Consent (SSD-6764) (as modified). WCPL has established and remains committed to maintaining open and constructive communication with the local community and stakeholders on environmental management as part of its ongoing operations.

The Annual Reviews and monthly Environment Protection Licence (EPL) reports are available on the Wilpinjong Coal Mine website: https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports

The results of the environmental monitoring program conducted in recent years demonstrate that WCPL effectively manages potential impacts from the operations of the Wilpinjong Coal Mine.

WCPL is committed to minimising the environmental and community impacts of its activities and has implemented a comprehensive Environmental Management System to support this commitment. The Environmental Management Strategy outlines the strategic framework for managing environmental performance at the Wilpinjong Coal Mine.

The Environmental Management Strategy facilitates the ongoing enhancement of both community and environmental performance by ensuring the effective implementation of policies, clear communication, thorough documentation, regular reviews and responsive actions. It embraces the principles of continuous improvement and aligns with the core elements of the *International Standard Organisation (ISO) 14001 Environmental Management Systems* (ISO 14001). The ISO 14001 framework provides a structured, iterative process for achieving continual improvement which is applied across Environmental Management Strategy's key components as outlined below:

- Commitment and Policy.
- Planning.
- Implementation.
- Measurement and Evaluation.
- Management Review.

Further information on WCPL's environmental policy and planning framework is available in the Peabody's annual Sustainability Report available on the website:
https://www.peabodyenergy.com/Sustainability/sustainability-overview/

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW

Proposed designated proponent details

Name	Jon Degotardi
Job title	Approvals Manager

Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com
Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW
Representative's name	Jon Degotardi
Representative's job title	Approvals Manager
Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com
Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW
Representative's name	Jon Degotardi
Representative's job title	Approvals Manager
Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com

Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

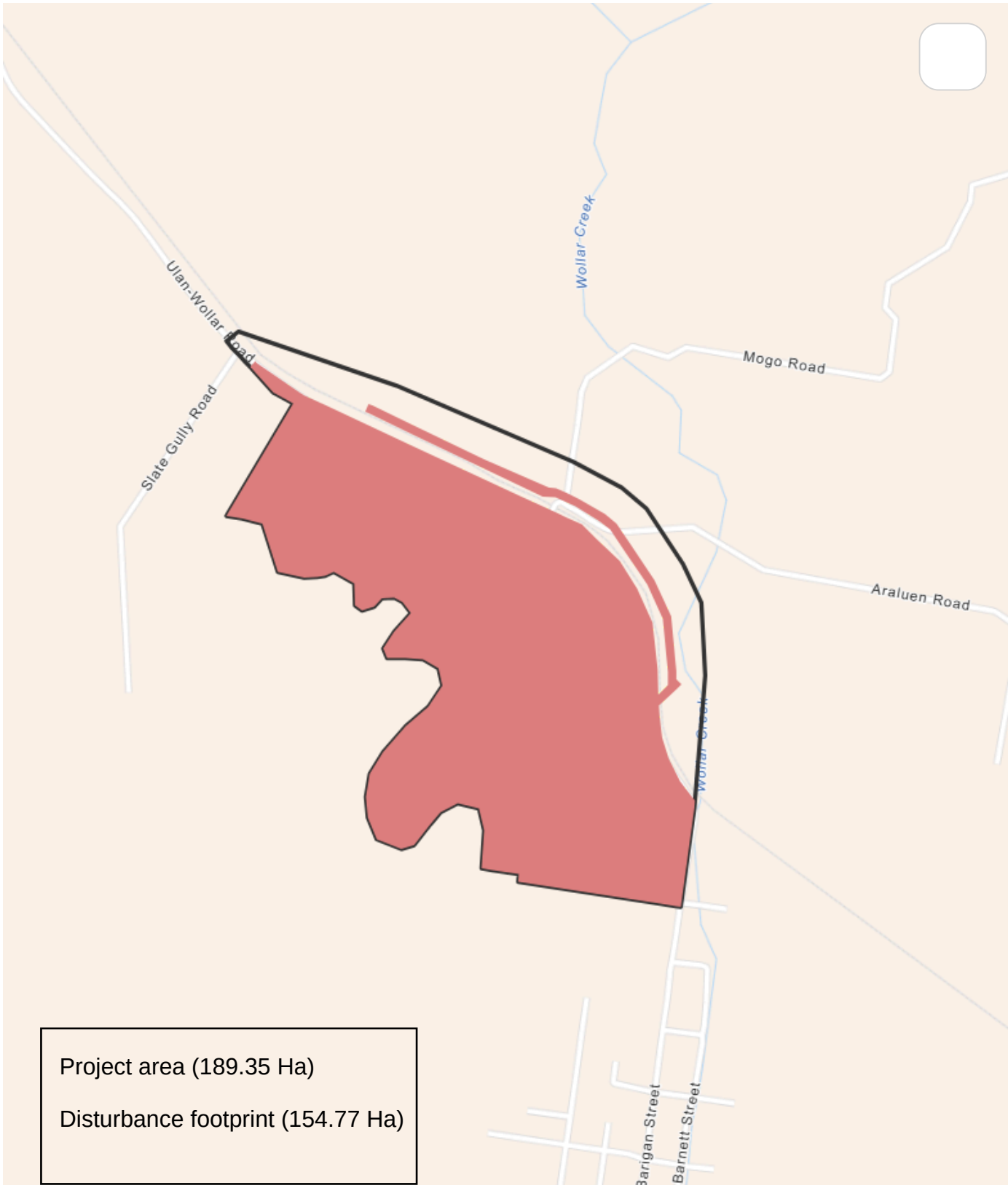
1.4 Payment details: Payment allocation

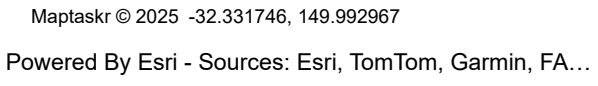
1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint





2.2 Footprint details

2.2.1 What is the address of the proposed action? *

1434 Ulan-Wollar Road, Wilpinjong NSW 2850 (Latitude: -32.341742, Longitude: 149.944800)

2.2.2 Where is the primary jurisdiction of the proposed action? *

New South Wales

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The Action Area is located on freehold land owned by WCPL and other smaller parcels of land between and adjacent freehold and Crown land, which contain roads and the Sandy Hollow Gulgong Railway (Att 1 – Figure 4). WCPL would obtain the relevant licences/leases for parcels of Crown land (e.g. Crown Roads) within the Action Area. The Action Area is located within the existing EL 9399. Appropriate mining leases would be secured with the relevant State agencies to permit the development of the Action within EL 9399.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The Action Area, at its closest point, is located approximately 45 km north-east of Mudgee and 35 km east of Gulgong. The Action Area adjoins the northern outskirts of Wollar township approximately 40 km north-east of Mudgee.

Ulan-Wollar Road and the Sandy Hollow Gulgong Railway cut through the north eastern edge of the Action Area. Surrounding ridges and extensive escarpments are present in the Goulburn River National Park approximately 1 km to the north and elevated Crown land to the immediate south and west. The Action Area is undulating with elevation ranging from 360 m Australian Height Datum (AHD) to 420 m AHD.

Prior to the Wilpinjong Coal Mine commencing in 2006, the Wollar area and adjoining valleys were typical of early (around the 1800s) European settlement where lands deemed arable were cleared of most vegetation primarily for grazing purposes. This is reflected in the Action Area being approximately 80% cleared grazing grassland. The Action Area also includes limited areas of steeper sloped lands that remain more heavily timbered.

The following key roads are of relevance to Action and the existing approved Wilpinjong Coal Mine:

- Ulan-Wollar Road – a local rural road which provides an east-west connection between the Villages of Ulan and Wollar and provides vehicular access to the Wilpinjong Coal Mine and Moolarben Coal Complex.
- Main Road 208 (MR208) – extends between Mudgee and Sandy Hollow through Budgee Budgee, Wollar and Bylong and passes to the south of the approved Wilpinjong Coal Mine. MR208 is known as Ulan Road (between Mudgee and Budgee Budgee) and Wollar Road (thereafter).
- Mogo Road and Araluen Road - local rural roads which provide access to and from a number of properties to the north and east of the Wilpinjong Coal Mine.

Primary access to the Wilpinjong Coal Mine from Ulan-Wollar Road is via an internal sealed mine access road connecting the existing mine facilities area to Ulan-Wollar Road. There would be no change to the primary site access for the Wilpinjong Coal Mine as a result of the Action.

There has been no recent bushfires or flood events within the Action Area that have affected the condition of the land.

The land within the Action Area is zoned under the *Mid-Western Regional Local Environmental Plan 2012* (Mid-Western LEP) as a combination of Zone RU1 (Primary Production), Zone RU5 (Large Lot Residential) and SP2 (Infrastructure). Open cut mining is permitted with consent within Zone RU1 (Primary Production) and Zone RU5 (Large Lot Residential) land under the Mid-Western LEP.

Contemporary land use in the vicinity of the Action Area is characterised by a combination of coal mining operations, previously rehabilitated mining areas, agricultural land uses and conservation areas.
The Action Area is located immediately adjacent to the existing/approved development footprint of the Wilpinjong Coal Mine (Att 1 – Figure 3b).

There are no incised drainage lines within the Action Area, with stormwater gradually following the lowest paths in the landscape.

3.1.2 Describe any existing or proposed uses for the project area.

The Action Area is primarily located on land that was once occupied by members of the north-eastern clan of the Wiradjuri tribe, centred around Mudgee and Rylstone. Interactions with and visitation from members of neighbouring cultural groups may also have sporadically occurred.

Contemporary land use in the vicinity of the Action Area is characterised by a combination of coal mining operations, rehabilitated previous mining areas, agricultural land uses and conservation areas. The land within the Action Area is zoned under the Mid-Western LEP as a combination of Zone RU1 (Primary Production), Zone RU5 (Large Lot Residential) and SP2 (Infrastructure).

The Action Area covers approximately 190 ha and is located directly adjacent to the existing approved Wilpinjong Coal Mine. The Action Area has historically been cleared for agricultural land uses (primarily low intensity grazing across native and improved pastures), with residual steeper slopes remaining more heavily timbered. Other land uses in the vicinity of the Action Area include scattered residences to the south and east, elevated Crown land to the south and west, as well as the Goulburn River National Park further to the north.

Wilpinjong Coal Mine extends approximately 10 km west to north-west of the Action Area. The Wilpinjong Coal Mine adjoins Moolarben Coal Complex which is immediately adjacent to the Ulan Coal Mine. The proposed post-mining land use for the mine site rehabilitation at the existing approved Wilpinjong Coal Mine is the establishment of woodland vegetation to satisfy NSW biodiversity offset requirements.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

There are no Areas of Outstanding Biodiversity Value listed under the NSW *Biodiversity Conservation Regulation 2017* associated with the Action Area.

No outstanding natural features and/or any other important or unique values have been identified within the Action Area.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The Action Area is dominated by gently undulating to level open drainage flats associated with Wilpinjong Creek and Wollar Creek and elevated landforms associated with vegetated ridges and escarpments. The Action Area is located within the greater Wollar Creek catchment, where rainfall runoff generally flows north-

east to the Goulburn River.

Elevations in the Action Area range from approximately 360 m AHD on lower sections of drainage flats to approximately 420 m AHD on crests and escarpments. The gradients within the Action Area are generally less than 10% along the drainage flats and valley floors, with some gradients greater than 10% near the elevated landforms and escarpment areas.

Elevated landforms associated with the Action Area are characterised by ridges covered in remnant native vegetation, and escarpments and dissected landforms associated with the elevated Crown land to the south and west. The remaining valley floors have been largely cleared for historical and ongoing agricultural operations.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

The *Review of the Matters of National Environmental Significance Related to Flora* (Hunter Eco, 2024) (MNES Flora Review) and *Review of the Matters of National Environmental Significance Related to Fauna* (BMS, 2024) (MNES Fauna Review) have been prepared to inform this Referral under the EPBC Act and are provided in Att 2 – MNES Flora Review and Att 3 – MNES Fauna Review.

Field survey results and desktop studies (such as species database reviews and use of the Commonwealth Protected Matters Search Tool [PMST]) have been used to inform the MNES Flora Review and MNES Fauna Review. Hunter Eco, BMS and Bolwarra Environmental Services, have undertaken surveys for threatened flora species and ecological communities across the Action Area since 2022. Targeted surveys for threatened flora species and threatened ecological communities were primarily conducted within the spring and summer months when detectability through noticeable flowering is at its highest. Targeted surveys for threatened fauna species were conducted across all seasons.

Vegetation

Canopy cover of natural woodland/forest within the Action Area consisted variously of White Box (*Eucalyptus albens*), Blakely's Red Gum (*Eucalyptus blakelyi*), Fuzzy Box (*Eucalyptus conica*), Slaty Box (*Eucalyptus dawsonii*), Yellow Box (*Eucalyptus melliodora*), Western Grey Box (*Eucalyptus microcarpa*), Grey Gum (*Eucalyptus punctata*) and Narrow-leaved Stringybark (*Eucalyptus sparsifolia*). There was also a plantation of River Red Gum (Eucalyptus camaldulensis) along with isolated planted individuals of the same species.

The overall Action Area is approximately 90% native vegetation. The remainder consists of sown pasture, fruit, olive and pine plantations and infrastructure, dams, rail and roads. The native vegetation is primarily derived native grassland (DNG) (approximately 75%) along with woodland/forest (approximately 10%), plantation and natural regeneration of canopy.

Ten Plant Community Types (PCT) were identified across the Action Area (Att 1 - Figure 5), the dominant PCT (approximately 64%) being the DNG form of PCT 3396 Northwest Flats Box-Blakely's Red Gum Forest.

Threatened Ecological Communities

Targeted field survey transects, vegetation integrity plots, rapid data points, vegetation classification and mapping has identified two ecological communities listed as threatened under the EPBC Act within the Action Disturbance Footprint (Att 1 – Figure 6):

- Central Hunter Valley Eucalypt Forest and Woodland Critically Endangered Ecological Community (CEEC); and
- White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grassland (Box-Gum Woodland) CEEC.

Central Hunter Valley Eucalypt Forest and Woodland

PCT 3497 Western Hunter Escarpment Slaty Gum-Pine Forest and PCT 3396 Northwest Slopes Box-Blakely's Red Gum Woodland were assigned to this TEC.

There are condition classes and thresholds for the Central Hunter Valley Eucalypt Forest and Woodland CEEC listed under the EPBC Act (Department of the Environment [DEE], 2015). The two patches of Central Hunter Valley Eucalypt Forest and Woodland CEEC in the Action Disturbance Footprint (totalling 3.1 ha) fall under Class B with ≥70% of perennial vegetation cover across all layers and ≥12 native understorey species.

White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grassland

PCT 3388 Central West Valleys White Box Forest was assigned to this TEC.

There are condition classes and thresholds for Box-Gum Woodland CEEC (Cth DCCEEW, 2023). The woodland form of PCTs 3388 and 3396 exceed all condition thresholds and are recognised as Class A. There is approximately 5.8 ha of Class A within the Action Disturbance Footprint.

Based on the flora survey data, the DNG and plantation forms fail to meet the required native understorey non-grass species count (≥12 species) (Cth DCCEEW, 2023). The DNG and plantation are therefore not Box-Gum Woodland CEEC listed under the EPBC Act.

Threatened Flora

Targeted systematic field survey transects and vegetation integrity plots have been undertaken across the Action Disturbance Footprint in accordance with NSW survey guidelines.

No threatened flora species listed under the EPBC Act have been identified in the Action Area.

Threatened Fauna

A total of five threatened fauna species under the EPBC Act were recorded inside the Action Disturbance Footprint (Att 1 – Figure 7), namely the:

- Brown Treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*);
- South-eastern Hooded Robin (*Melanodryas cucullata cucullata*);
- Diamond Firetail (*Stagonopleura guttata*);
- Large-eared Pied Bat (*Chalinolobus dwyeri*); and
- Corben's Long-eared Bat (*Nyctophilus corbeni*).

A further three threatened fauna species under the EPBC Act were recorded during the surveys outside the Action Disturbance Footprint, namely the:

- White-throated Needletail (*Hirundapus caudacutus*);
- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*); and
- Koala (*Phascolarctos cinereus*).

Two migratory species under the EPBC Act were recorded during the surveys, namely the:

- White-throated Needletail (*Hirundapus caudacutus*); and
- Satin Flycatcher (*Myiagra cyanoleuca*).

In addition to the above, the Regent Honeyeater (*Anthochaera phrygia*) is a relevant species because all treed areas are mapped as Important Habitat for the species (Att 1 - Figure 8).

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Native Vegetation

The Action Area is directly adjacent to the existing approved disturbance area of the Wilpinjong Coal Mine and is primarily comprised of derived native grasslands with scattered paddock trees and remnant open woodland (Att 1 – Figure 5).

Canopy cover of natural woodland/forest within the Action Area consisted variously of White Box (*Eucalyptus albens*), Blakely's Red Gum (*Eucalyptus blakelyi*), Fuzzy Box (*Eucalyptus conica*), Slaty Box (*Eucalyptus dawsonii*), Yellow Box (*Eucalyptus melliodora*), Western Grey Box (*Eucalyptus microcarpa*), Grey Gum (*Eucalyptus punctata*) and Narrow-leaved Stringybark (*Eucalyptus sparsifolia*). There was also a plantation of River Red Gum (*Eucalyptus camaldulensis*) along with isolated planted individuals of the same species.

Ten Plant Community Types (PCT) were identified across the Action Area (Att 1 - Figure 5), the dominant (approximately 64%) being the DNG form of PCT 3396 Northwest Flats Box-Blakelys Red Gum Forest.

Weeds

55 weed species and 11 high threat exotic species have been identified within the Action Area.

Geology and Soils

Geology across the Action Disturbance Footprint was sourced from the *New South Wales Seamless Geology dataset, single layer, version 2.2* (Colquhoun et al., 2022). The Action Disturbance Footprint consists of Permian Illawarra Coal Measures and derived colluvium/alluvium consisting of quartz-lithic sandstone, mudstone (sporadically carbonaceous), claystone, coal, torbanite, rhyolitic tuff and some lenses of polymictic conglomerate. Surrounding escarpments consisted of Narrabeen sandstone and there are two small isolated low rocky hills rising from the valley floor that are of igneous or volcanic origin.

The Australian Soil Classification soil types (Isbell and the National Committee on Soil and Terrain, 2021) indicates that the valley floor consists of Kurosols, Natric (75%) which have low agricultural potential due to high acidity and low chemical fertility. The surrounding escarpments consist of Rudosols and Tenosols (22%) which are depositional soils again of low agricultural potential. There is a small area of Ferrosols (3%) mapped to the south-west of the Action Area which have high agricultural potential with moderate to high chemical fertility and water-holding capacity. These are likely to have been eroded from the nearby igneous and volcanic formations.

Soil landscapes series mapping of Central and Eastern NSW (NSW DCCEEW, 2024) indicate that the Action Area intersects a number of landscapes including:

- Lees Pinch Soil Landscape;
- Barrigan Creek Soil Landscape; and
- Bald Hill Soil Landscape.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

No Commonwealth, State or local heritage listed items are located within the Action Area. There are also no items within the Action Area registered on the Australian Heritage Database and National Heritage List. Therefore, no listed heritage items would be directly impacted by the proposed Action.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The existing Wilpinjong Coal Mine and surrounding area have been subject to systematic Aboriginal cultural heritage surveys over several decades. WCPL operates under an approved Aboriginal Heritage Management Plan in conjunction with Aboriginal groups and individuals that have registered an interest in being consulted (referred to as Registered Aboriginal Parties).

An ACHA would be prepared by Navin Officer Heritage Consultants Pty Ltd in accordance with the relevant NSW Government guidelines to comprehensively assess any potential impacts of the proposed Action on Aboriginal cultural heritage values.

The ACHA methodology includes consultation with Registered Aboriginal Parties, field surveys and a targeted subsurface test excavation program for the Action. The ACHA will involve participation of the Registered Aboriginal Parties in accordance with relevant guidelines.

Preliminary findings from field surveys undertaken in the Action Area indicate the sites identified are generally consistent with the previously identified sites in the wider region, that include artefact scatters and potential archaeological deposits. These preliminary findings would be reviewed in consultation with the Registered Aboriginal Parties and in accordance with the relevant guidelines and final outcomes would be outlined in the ACHA.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The hydrology in the vicinity of the Action Area has been influenced by agricultural activities, the existing and approved mining operations at Wilpinjong Coal Mine and surrounding mining operations. A summary of the surface water and groundwater characteristics are provided below.

Geology

The Action Disturbance Footprint consists of Permian Illawarra Coal Measures and derived colluvium/alluvium consisting of quartz-lithic sandstone, mudstone (sporadically carbonaceous), claystone, coal, torbanite, rhyolitic tuff and some lenses of polymictic conglomerate. Surrounding escarpments consisted of Narrabeen sandstone and there are two small isolated low rocky hills rising from the valley floor that are of igneous or volcanic origin. The regional geology is presented on Att 1 – Figure 9.

Surface Water

The Action Area is located wholly within the Upper Goulburn River catchment, which is part of the Hunter River basin. The Action Area is located within the greater Wollar Creek Catchment (Att 1 – Figure 10), with Wollar Creek to the east, Wilpinjong Creek to the north and Cumbo Creek to the west (within the existing/approved surface development footprint of Wilpinjong Coal Mine).

Wollar Creek joins the Goulburn River approximately 8 km to the north-east of the Action Area. The catchment area of Wollar Creek at the confluence with the Goulburn River is approximately 530 square kilometres (km2).

Wilpinjong Creek flows into Wollar Creek approximately 4 km downstream of the confluence of Cumbo Creek and Wilpinjong Creek. Prior to the commencement of mining activities, the catchment area of Wilpinjong Creek to the Wollar Creek confluence was approximately 214 km2. Wilpinjong Creek is incised into the valley floor and forms a series of semi-permanent soaks primarily fed by drainage from the surrounding alluvial plain and colluvium which is recharged by runoff.

The catchment area of the Goulburn River at the confluence with Wollar Creek is approximately 1,149 km2 (WRM, 2015).

Groundwater

A conceptual and numerical model of the groundwater regime has been developed based on the known geology of the area and previous groundwater assessments and modelling for the Wilpinjong Coal Mine (e.g. *Wilpinjong Extension Project - Environmental Impact Statement* [WCPL, 2015], *Wilpinjong Coal Mine Rehabilitation Strategy* [WCPL, 2022]).

Three main groundwater systems have been identified in the vicinity of the Action Area:

- Alluvial groundwater system associated primarily with Wollar Creek, Wilpinjong Creek and Cumbo Creek.
- Porous rock groundwater system consisting primarily of the Permian-aged Illawarra Coal Measures.
- Perched groundwater systems associated elevated sandstone plateaus of the Triassic Narrabeen Group.

Alluvium

The alluvial groundwater system is associated with alluvial sediments along Wollar Creek, Wilpinjong Creek and Cumbo Creek. Colluvial deposits are evident at Wilpinjong Creek.

Recharge to the alluvial groundwater system is generally through rainfall infiltration. Areas of alluvium and where sandier soils are present are likely to accept more infiltration (recharge) than areas where clayey soils or bare rock are present. Wollar Creek, Wilpinjong Creek and Cumbo Creek are conceptualised as gaining systems under natural conditions.

Groundwater, under natural conditions, is expected to discharge upwards from the Permian units (e.g. coal measures) to the alluvium associated with Wollar Creek and Wilpinjong Creek. Loss by evapotranspiration is likely along the riverine corridor where the water table is nearer the ground surface (where it is usually less than 2 metres [m] or 3 m below ground level).

NSW DCCEEW - Water mapping identifies a portion of the alluvial aquifer associated with Wilpinjong Creek and lower Wollar Creek as 'highly productive' (Att 1 – Figure 11). It is noted that in the vicinity of the Wilpinjong Coal Mine this 'highly productive' aquifer is largely confined to Peabody-owned land. In addition, HydroSimulations (2015) concluded it is unlikely that the current 'highly productive' classification for this area of the alluvial water source is valid, based on available data, including WaterNSW database records and water quality data.

Groundwater resources associated with the main local streams (i.e. Wilpinjong Creek, Cumbo Creek, Wollar Creek) are alluvial groundwater of unregulated tributaries of the Hunter River in the Wollar Creek Water Source.

Permian Coal Measures

The porous/fractured rock groundwater system consists primarily of the Permian Illawarra Coal Measures composed of interbedded sequences of sandstone, siltstone, and coal. The most permeable units are the Ulan Coal Seam and Marrangaroo Formation. The Illawarra Coal Measures also include low permeability mudstones and siltstones. Late Triassic-aged intrusions are also present within and in the vicinity of the Action Area.

Groundwater is encountered in both the coal seams and in the lower permeability sandstone/siltstone units. The coal seams are the higher yielding units within the Permian sequence, with permeability associated with secondary porosity in the form of cleats, fractures, and joints. Groundwater within the coal seams was historically confined to semi-confined, particularly north of the Action Area near Wilpinjong Creek, although have been affected by previous and current mining activities.

Groundwater flow direction in the Ulan Seam, which is a coal extraction target, shows a general pattern of down-dip flow to the north and east and was interpreted as representative of the pattern of flow in less permeable overlying Permian Coal Measures or underlying Marrangaroo Formation and Nile Sub-group.

The Permian coal measures are recharged from rainfall infiltration. Groundwater discharge occurs via mine dewatering, baseflow and private extraction. Vertical movement of groundwater (including recharge) is limited by the confining interburden layers, meaning that groundwater flow is primarily horizontal through the seams with recharge primarily occurring at sub-crop.

Narrabeen Group

Perched groundwater systems associated with elevated sandstone plateaus of the Triassic Narrabeen Group are present in the vicinity of the Action Area, located with the elevated Crown land to the south and west of the Action Area and further to the north within the Goulburn River National Park.

The Narrabeen Group “form cliffs, ridges and hilltops of mesa-like plateaus” surrounding the existing Wilpinjong Coal Mine and the thickest are located to the north. Typical lithologies include pebbly to medium-grained quartz sandstone, red-brown and green mudstone and lenses of quartz conglomerate. The thickness of these deposits is typically 100-180 m (HydroSimulations, 2015).

Sandstones of the Narrabeen Group are of lower permeability. Seepage faces may occur along the cliff faces adjacent to Wilpinjong Creek after rainfall events, and perched water tables might be sustained at high elevations due to the presence of occasional mudstone/siltstone beds between the sandstone layers (HydroSimulations, 2015).

Groundwater is not known to be extracted from the Triassic Narrabeen Formation (e.g. no groundwater users) and there is limited to no groundwater monitoring data as it is located within the elevated Crown land to the south and west of the Action Area or further north in the Goulburn River National Park , however, trees on the Narrabeen Group plateaus surrounding might access perched groundwater (HydroSimulations, 2015).

Assessments

A Groundwater Assessment and Surface Water Assessment will be prepared for the Action as part of the Modification Report, with relevant investigations, modelling and assessments ongoing.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes

EPBC Act section	Controlling provision	Impacted	Reviewed
S24D	Water resource in relation to large coal mining development or coal seam gas	Yes	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no World Heritage sites within or near the Action Area that would be directly or indirectly impacted by the proposed Action. The closest World Heritage site is the Greater Blue Mountains Area, within the Wollemi National Park, located approximately 25 km south-east of the Action Area and would not be impacted by the Action.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no National Heritage sites within or near the Action Area that would be directly or indirectly impacted by the proposed Action. The closest National Heritage site is the Greater Blue Mountains Area, within the Wollemi National Park, located approximately 25 km south-east of the Action Area and would not be impacted by the Action.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
No	No	Hunter Estuary Wetlands

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no Ramsar Wetlands within the Action Area or immediate surrounds that would be directly or indirectly impacted by the Action. The closest Ramsar wetland is the Hunter Estuary Wetlands, which is located approximately 175 km south-east of the Action Area and would not be impacted by the Action

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Androcalva procumbens	
Yes	No	Anthochaera phrygia	Regent Honeyeater
No	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Aprasia parapulchella	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Callocephalon fimbriatum	Gang-gang Cockatoo
Yes	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
Yes	Yes	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
Yes	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Delma impar	Striped Legless Lizard, Striped Snake-lizard
No	No	Euphrasia arguta	
No	No	Falco hypoleucos	Grey Falcon
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Grantiella picta	Painted Honeyeater
No	No	Heleioporus australiacus	Giant Burrowing Frog
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Homoranthus darwinioides	

Direct impact	Indirect impact	Species	Common name
Yes	No	Lathamus discolor	Swift Parrot
No	No	Leipoa ocellata	Malleefowl
No	No	Litoria booroolongensis	Booroolong Frog
Yes	No	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	Neophema chrysostoma	Blue-winged Parrot
Yes	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Ozothamnus tesselatus	
No	No	Petrogale penicillata	Brush-tailed Rock-wallaby
Yes	No	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Polytelis swainsonii	Superb Parrot
No	No	Prasophyllum sp. Wybong (C.Phelps ORG 5269)	a leek-orchid
No	No	Pseudomys novaehollandiae	New Holland Mouse, Pookila
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Pycnoptilus floccosus	Pilotbird
No	No	Rostratula australis	Australian Painted Snipe
Yes	No	Stagonopleura guttata	Diamond Firetail
No	No	Thesium australe	Austral Toadflax, Toadflax

Ecological communities

Direct impact	Indirect impact	Ecological community
Yes	No	Central Hunter Valley eucalypt forest and woodland
Yes	No	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

An assessment of the likely direct and/or indirect impacts for each protected matter is provided in MNES Flora Review (Att 2 – MNES Flora Review) and MNES Fauna Review (Att 3 – MNES Fauna Review).

Direct Impacts

Direct impacts would be in the form of clearing of suitable habitat and threatened ecological communities.

It is considered that the Action may have direct impacts on the following threatened species and communities (Att 2 – MNES Flora Review and Att 3 – MNES Fauna Review):

- Central Hunter Valley Eucalypt Forest and Woodland CEEC (direct disturbance of approximately 3.1 ha).
- White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grassland CEEC (direct disturbance of approximately 5.8 ha).
- Brown Treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*) (direct disturbance of suitable woodland habitat).
- South-eastern Hooded Robin (*Melanodryas cucullata cucullata*) (direct disturbance of suitable woodland habitat).
- Diamond Firetail (*Stagonopleura guttata*) (direct disturbance of suitable woodland habitat).
- Regent Honeyeater (*Anthochaera phrygia*) (direct disturbance of foraging [and potentially nesting] habitat, with most areas of contiguous forest/woodland habitat avoided).
- Swift Parrot (*Lathamus discolor*) (direct disturbance of potential foraging trees that may be used by this species on occasion).
- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*) (direct disturbance of forgaing habitat).
- Large-eared Pied Bat (*Chalinolobus dwyer*i) (direct disturbance of suitable breeding habitat [rocky habitat]).
- Corben’s Long-eared Bat (*Nyctophilus corbeni*) (direct disturbance of suitable habitat [tree hollows], noting it is largely lower quality relative to nearby reserved lands).
- Koala (*Phascolarctos cinereus*) (direct disturbance of suitable treed habitat, noting it is largely lower quality relative to nearby reserved lands).

The White-throated Needletail (*Hirundapus caudacutus*) was recorded as a flyover in the vicinity of the Action Disturbance Footprint. The Action is unlikely to directly impact this species as it is almost exclusively aerial while in Australia during the non-breeding season.

Indirect Impacts

Indirect impacts to the Large-eared Pied Bat (*Chalinolobus dwyeri*) may occur as a result of blasting/vibration impacts on breeding individuals beyond the Action Disturbance Footprint. Dust, noise and light spill are also potential indirect impacts that could reduce habitat quality for this particular species.

No material indirect impacts are considered likely for any other threatened species or ecological community identified.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

The Action would directly impact foraging habitat of the Large-eared Pied Bat (Chalinolobus dwyeri). There is also rocky habitat within the Action Disturbance Footprint, which the species may use for breeding. A conservative approach is being taken in regard to the potential for significant impacts to this species. WCPL would offset the impacts with foraging habitats around other suitable breeding habitat and is investigating measures to mitigate impacts on rocky habitat.

Justification for why other direct impacts would not constitute a significant impact are outlined in Att 2 – MNES Flora Review, Appendix 1, page 14 and Att 3 – MNES Fauna Review, Table 1, pages 12-18.

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

The proposed Action is likely to be a controlled Action due to potential significant impacts on threatened species.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The layout and location of the Action Area has been through a design process to avoid and/or reduce impacts to biodiversity values. This includes avoidance (as far as practicable) of threatened ecological communities and threatened fauna habitat.

Detail on the design and extent of the Pit 8 Extension area and ancillary components of for the Action are outlined in Section 4.3.8, including alternatives considered.

WCPL has established and maintains management measures at the Wilpinjong Coal Mine including vegetation clearance protocols, measures to limit the risk of spreading weeds and other pests, measures to manage the risk of bushfires and progressive rehabilitation. These measures would continue in the Pit 8 Extension areas.

WCPL has designed the mine plan for the Action to backfill the mined void within Pit 8 Extension area and shape the final landform to be free-draining, incorporating geomorphic principles and integrating with nearby ridges.

As the Action would not involve any additional final voids at the end of mining operations, there would be no additional saline void water bodies generated and no residual catchment excision post-mining (e.g. free-draining landform).

Progressive rehabilitation would be undertaken on backfilled landforms to reestablish native vegetation and species habitat over time. WCPL has successfully rehabilitated significant areas across the existing Wilpinjong Coal Mine.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

A range of measures would be implemented for the Action to maintain or improve biodiversity values of the region in the medium- to long- term. These measures would include impact avoidance, minimisation, mitigation and offsets (for residual impacts).

The Biodiversity Offset Strategy for the proposed Action will be outlined in the BDAR and in accordance with the BC Act.

It is expected that this will include local land-based offsets on land owned by WCPL.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
No	No	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper

Direct impact	Indirect impact	Species	Common name
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Motacilla flava	Yellow Wagtail
Yes	No	Myiagra cyanoleuca	Satin Flycatcher
No	No	Rhipidura rufifrons	Rufous Fantail

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

An assessment of the likely direct and indirect impacts for each migratory species identified in the EPBC PMST is provided in Att 3 – MNES Fauna Review.

For most migratory species identified, there is either no potential habitat in the Action Disturbance Footprint or the species has not been identified despite extensive surveys at the relevant times of year. Other species are almost exclusively aerial while in Australia, and would therefore not experience direct impacts as a result of clearance associated with the Action.

One species, the Satin Flycatcher, would experience direct impacts as a result of clearance of suitable woodland habitat.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

There is not likely to be any significant impact to the Satin Flycatcher due to the majority of habitat in the Action Disturbance Footprint (approximately 81%) being disturbed by grazing and/or clearing. The Action would not impact the Satin Flycatcher’s north-south migratory pathway from south-eastern Australia to northern Queensland/New Guinea.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

The direct impacts on Satin Flycatcher habitat would not result in a significant impact on this species.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The layout and location of the Action Area has been through a design process to avoid and/or reduce impacts to biodiversity values. This includes avoidance (as far as practicable) of threatened ecological communities and threatened fauna habitat.

Detail on the design and extent of the Pit 8 Extension area and ancillary components of for the Action are outlined in Section 4.3.8, including alternatives considered.

WCPL has established and maintains management measures at the Wilpinjong Coal Mine including vegetation clearance protocols, measures to limit the risk of spreading weeds and other pests, measures to manage the risk of bushfires and progressive rehabilitation. These measures would continue in the Pit 8 Extension areas.

WCPL has designed the mine plan for the Action to backfill the mined void within Pit 8 Extension area and shape the final landform to be free-draining, incorporating geomorphic principles and integrating with nearby ridges.

As the Action would not involve any additional final voids at the end of mining operations, there would be no additional saline void water bodies generated and no residual catchment excision post-mining (e.g. free-draining landform).

Progressive rehabilitation would be undertaken on backfilled landforms to reestablish native vegetation and species habitat over time. WCPL has successfully rehabilitated significant areas across the existing Wilpinjong Coal Mine.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

A range of measures would be implemented for the Action to maintain or improve biodiversity values of the region in the medium- to long- term. These measures would include impact avoidance, minimisation, mitigation and offsets (for residual impacts).

The Biodiversity Offset Strategy for the proposed Action will be outlined in the BDAR and in accordance with the BC Act.

It is expected that this will include local land-based offsets on land owned by WCPL.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Action does not involve nuclear actions, therefore, would not have any impact on the protected matters as a result of nuclear actions.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no Commonwealth Marine Areas within or near the Action Area that would be directly or indirectly impacted by the proposed Action. The closest Commonwealth Marine Area (e.g. Temperate East Marine Region) is located approximately 190 km south-east of the Action Area and would not be impacted by the Action.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Actionis unlikely to have a direct or indirect "impact" (as defined under the EPBC Act) on the Great Barrier Reef Marine Park (GBRMP).

The Action will not have a direct impact on the GBRMP because the Great Barrier Reef is located approximately 900 km from the Action.

In relation to the greenhouse gas emissions (GHG emissions) associated with the Action and the physical effects of climate change on the GBRMP, the Action is unlikely to have an indirect "impact" (as defined under the EPBC Act) on the GBRMP, including for the following two reasons:

1. the Action is not expected to cause any net increase in global GHG emissions and the global average temperature including because:

a). the GHG emissions generated by the ultimate combustion of the coal produced by the Action may be offset, mitigated or abated by the jurisdictions that are the prospective consumers of the coal. For example, these jurisdictions may implement new policies or regulations in relation to GHG emissions to align with goals set out in the Paris Agreement; and

b). if the Action does not proceed, prospective buyers would likely purchase an equivalent amount of coal from a supplier other than WCPL, which would likely result in an equivalent amount of GHG emissions when combusted, when compared with the estimated amount associated with the coal produced by the Action.

2. even if the Action was to cause a net increase in global GHG emissions, any contribution from the Action to global GHG emissions would be negligible, such that the proposed Action would not be a substantial cause of the physical effects of climate change on the GBRMP.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

Yes

4.1.9.2 Briefly describe why your action has a direct and/or indirect impact on this protected matter. *

The Action involves the proposed extension to open cut mining into the Pit 8 Extension area at the Wilpinjong Coal Mine. The excavation of overburden and coal would result in direct and indirect impacts on groundwater resources such as depressurisation of aquifers, drawdown on the groundwater table and changes in groundwater flow patterns and baseflow.

The Action would not involve extension of open cut mining into the alluvium and floodplain associated with the current alignments of Wollar Creek or Wilpinjong Creek (noting there may be new surface development within the Wollar Creek floodplain requiring minor flood mitigation bunds).

The proposed extension to open cut mining into the Pit 8 Extension area for the Action may also result in potential impacts on water resources from alteration to stream catchment areas and/or baseflow to nearby creeks (where incremental impacts arise that are additional to the impacts of the approved Wilpinjong Coal Mine). In addition, the Action would potentially result in some incremental alteration of the water balance (including water release requirements) of the approved Wilpinjong Coal Mine, alter the final landforms (including final voids).

4.1.9.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.9.5 Describe why you consider this to be a Significant Impact. *

Section 4.2 of the *Significant impact guidelines 1.3: Coal seam gas and large coal mining developments - impacts on water resources* (DCCEEW, 2022) states the following:

An action is likely to have a significant impact on a water resource if there is a real or not remote chance or possibility that it will directly or indirectly result in a change to:

- *the hydrology of a water resource*
- *the water quality of a water resource*

that is of sufficient scale or intensity as to reduce the current or future utility of the water resource for third party users, including environmental and other public benefit outcomes, or to create a material risk of such reduction in utility occurring.

The potential impacts of the Action in regard to the hydrology and water quality of water resources are considered below.

The Wilpinjong Coal Mine has been the subject of a number of hydrological studies and has a significant record of environmental monitoring. Building on these earlier studies and data collection, groundwater and surface water assessments are currently in preparation by SLR and WRM respectively to assess the potential impacts

of the Modification (including the Action) and any cumulative impacts on the hydrological systems within and in proximity to the Action.

Potential Impacts on Hydrological Characteristics

The Action would involve development of additional water management infrastructure (e.g. dams, drains, pumps, pipelines and flood protection bunds). During mining operations, the additional water management infrastructure would capture runoff from areas that would have previously flowed to the receiving waters (e.g. Wollar Creek, Wilpinjong Creek, etc.).

The new surface development footprint for the Action has been minimised as far as practicable based on the currently available information. However, the Action (including the new surface development footprint) may be subject to further refinement during detailed design and preparation of assessment documentation, including development of measures to further avoid or mitigate potential impacts on water resources.

Progressive rehabilitation would be undertaken on backfilled landforms and would gradually reduce the area of catchment excision once surface water runoff from rehabilitated areas is of suitable quality to be directed off-site (e.g. meets the applicable water quality limits).

In consideration of the above, additional catchment excision associated with the Action would be a temporary impact and is not expected to have a significant impact on surface water hydrology during mining operations. The predicted maximum effect of runoff capture and potential reduction of baseflow on flows in Wollar Creek and Wilpinjong Creek will be assessed in the Surface Water Assessment.

Potential Impacts on Integrity of Hydrogeological Connections

Existing open cut mining of the approved Wilpinjong Coal Mine has resulted in depressurisation of the Permian coal measures. The Action would involve extension of the existing, approved Pit 8 which would be expected to have similar, but additional, measurable incremental effect on alluvial aquifers associated with Wilpinjong Creek and Wollar Creek (Att 1 - Figure 11) compared to the approved Wilpinjong Coal Mine. These incremental increased effects may include reduction in creek baseflow and groundwater upflow (i.e. in addition to the impacts of the approved Wilpinjong Coal Mine) and would be modelled and assessed as part of the Groundwater Assessment.

Potential Impacts on Existing Groundwater Users

In accordance with the *NSW Aquifer Interference Policy: NSW Government policy for the licensing and assessment of aquifer interference activities (NSW Department of Primary Industries, 2012)*, up to a 2 m cumulative decline in the level of the water table at any water supply work is considered acceptable. Maximum drawdown impacts of the Action, in addition to the cumulative impacts of surrounding mines on existing groundwater users in the region, will be estimated via groundwater modelling as a component of the Groundwater Assessment that is currently in preparation.

The previous Groundwater Assessment prepared for the Wilpinjong Extension Project (HydroSimulations, 2015) concluded negligible impacts were expected to occur to access to water in known registered production bores licensed to external parties (as predicted drawdowns were all < 2 m).

Based on the above, the Action is not expected to significantly impact on groundwater use from existing privately-owned bores, noting numerical groundwater modelling would be used to predict any drawdown that may occur at privately-owned bores and assess the potential impacts as part of the Groundwater Assessment.

Water Take Associated with the Action

The proposed extension and progression of open cut mining for the Action would contribute towards an extension of the zone of depressurisation/drawdown around the Wilpinjong Coal Mine, discharge from the hard rock porous aquifers to the open cut in the Pit 8 Extension area (e.g. groundwater inflows) and minor changes in leakage rates from the alluvial systems.

The Action is also expected to have an incremental increase in the change to flows in local creeks due to changes in groundwater baseflow contributions.

Under the *Water Management Act 2000*, all water taken by aquifer interference activities is required to be accounted for within the extraction limits set by any relevant water sharing plans (Att 1 – Figure 11). WCPL currently holds adequate licences (i.e. Water Access Licences [WALs]) for the groundwater 'take' associated with the approved Wilpinjong Coal Mine as follows:

- 3,121 units (WAL 41862) in the Sydney Basin-North Coast Groundwater Source under the *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016*.
- 474 units (WAL 21499) in the Wollar Creek Water Source under the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2022.*

The proposed Action is expected to result in some incremental increases in the volume of groundwater 'take' and, if required, WCPL would acquire any additional necessary licences for the predicted increased water take associated with the Action.

Water Balance and Licensed Water Discharges

A schematic of the indicative water management system at the approved Wilpinjong Coal Mine is shown in Att 1 - Figure 12, noting these activities are not part of the Action. The continued controlled releases from the licensed discharge point on Wilpinjong Creek under EPL 12425 are also not part of the Action. Under EPL 12425, WCPL is currently required to treat wastewater using a Reverse Osmosis plant prior to discharge to meet an upper limit for salinity (electrical conductivity) of 500 microSiemens per centimetre (µS/cm) at a maximum rate of 6.5 megalitres per day to Wilpinjong Creek.

The Action involves development of additional water management infrastructure (e.g. dams, drains, pumps, pipelines and flood protection bunds). Water management infrastructure for the Action would be designed, constructed and operated to comply with the water management performance measures in Condition 29 of

the Development Consent (SSD-6764).

Based on compliance with these performance measures, the Action is not expected to result in a significant impact on downstream surface water quality.

Potential Impacts on Groundwater Dependent Ecosystems

No Groundwater Dependent Ecosystems (GDEs) have been identified within the Action Area. A number of High Priority GDEs have been identified in the wider region and it is not anticipated that these would be significantly impacted by the Action, mainly due to the distance from the Action. Riparian vegetation on Cumbo, Wilpinjong and Wollar Creeks in the vicinity of the Action may potentially be classified as a GDE, and could be affected by the Action.

The nature and scale of the potential impacts of the Action on potential GDEs will be assessed in the Groundwater Assessment, BDAR and Aquatic Ecology Assessment for the Modification Report, however it is not likely that the Action would result in significant impacts to GDEs.

Post-mining Landform

WCPL has designed the mine plan for the Action to backfill the mined void within Pit 8 Extension area and shape the final landform to be free-draining, incorporating geomorphic principles and integrating with nearby ridges.

As the Action would not involve any additional final voids at the end of mining operations, there would be no additional saline void water bodies generated and no residual catchment excision post-mining (i.e. free-draining landform).

Conclusion

It is expected that the potential impacts on water resources can be adequately managed through water licensing and the existing Environmental Management System for the Wilpinjong Coal Mine.

Notwithstanding the above, as the Modification Surface Water and Groundwater Assessments are in preparation and further analysis of data and impact assessment are yet to be completed, uncertainty remains over the potential impacts on water resources. In accordance with the *Significant impact guidelines 1.3 Coal seam gas and large coal mining developments — impacts on water resources* (Commonwealth DCCEEW, 2022), the precautionary principle is applicable in this case. Under the precautionary principle, it is considered possible that without mitigation or offsets, the Action could have a significant impact on a water resource.

4.1.9.7 Do you think your proposed action is a controlled action? *

Yes

4.1.9.8 Please elaborate why you think your proposed action is a controlled action. *

On the basis of the reasons outlined in this Referral, and in consideration of the precautionary principle, the Action is considered a controlled action as it may be likely to have a significant impact on a water resource.

4.1.9.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

WCPL has designed the mine plan for the Action to completely backfill the mined void within the Pit 8 Extension area and shape the final landform to be free-draining, incorporating geomorphic principles and integrating with nearby ridges.

As the Action would not involve any additional final voids at the end of mining operations, there would be no additional saline void water bodies generated and no residual catchment excision post-mining (i.e. free-draining landform).

Water management infrastructure for the Action would be designed, constructed and operated to comply with the water management performance measures in Condition 29 of the Development Consent (SSD-6764).

WCPL would also continue to operate in accordance with the Water Management Plan, which includes an extensive surface water monitoring network (Att 1 – Figure 10) and groundwater monitoring network (Att 1 – Figure 11), which is augmented over time as mining operations progress.

4.1.9.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Under the NSW *Water Management Act 2000*, all water ‘take’ is required to be accounted for within the extraction limits set by any relevant water sharing plans. WCPL currently holds adequate licences (i.e. WALs) for the groundwater and surface water ‘take’ associated with the approved Wilpinjong Coal Mine and, if required, WCPL will acquire adequate licences to account for any additional licensable water ‘take’ for potential impacts on groundwater and surface water resources associated with the Action.

Consistent with the Development Consent (SSD-6764) and the Water Management Plan for the approved Wilpinjong Coal Mine, WCPL is required to provide appropriate contingency measures (e.g. deepening of an affected groundwater supply) or alternative compensatory water supply to any landowner of privately-owned

land (including the owner of the Wollar Public School land) whose surface water and/or groundwater supply is adversely and directly impacted as a result of the Action (other than an impact that is minor or negligible).

The Water Management Plan includes complaint response protocols to respond to community concerns that relate to surface water and groundwater matters.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Action will not take place on Commonwealth Land, and therefore would not be directly or indirectly impacted by the Action.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Action is situated on mainland Australia and would not directly or indirectly impact Commonwealth Heritage Places Overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)
- Water resource in relation to large coal mining development or coal seam gas (S24D)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Commonwealth Land (S26)

- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

The location of the Action (i.e. open cut mining in the Pit 8 Extension area) is primarily determined by the target coal resource and the exploration and mining tenements granted by the NSW Government. The design and extent of the Pit 8 Extension area for the Action have been developed with careful consideration of the following key constraints:

- Extent of WCPL's mining and exploration tenements (e.g. EL 9399).
- Resource definition and mine planning conducted by WCPL to date within WCPL's existing mining and exploration tenements.
- Sandy Hollow Gulgong Railway which bisects the Action Area and constrains the extent of open cut mining.
- Crown Land to the immediate south and west of the Action Area.
- Ulan-Wollar Road to the east of the Action Area.

Other potential constraints taken into account in the design of ancillary components of the Action, such as, the development of supporting infrastructure for open cut mining, water management systems, and the realignment of sections of public roads, powerlines and telecommunication services, include:

- Topographic constraints associated with the elevated Crown land to the south and west.
- Proximity to Wollar Creek and associated alluvial sediments and floodplain.
- Proximity to private and public landholders.
- Interaction with surrounding public infrastructure including Sandy Hollow Gulgong Railway, public roads, powerlines and telecommunication services.
- Land assessed to have higher agricultural productivity (i.e. land verified as Biophysical Strategic Agricultural Land) to the east.
- Proximity to Goulburn River National Park (approximately 1 km to the north-east).

WCPL has considered several alternatives for the Action to date, but these have not been adopted:

- Not proceeding with the Action: This alternative would preclude access to coal resources (sterilising approximately 14 Mt) that if extracted would maintain the target ROM coal production profile until December 2033 and the existing workforce until approximately 30 June 2034. Not proceeding with the

Action would also not realise substantial State royalty payments and taxes, and social benefits (e.g. employment) and expenditure at businesses within the surrounding region.

- Alternative mining methods: Underground mining methods would not be suitable as an alternative to open cut mining methods due to the shallow coal seams relative to the land surface and the relatively low strip ratios within the Action Area, and more widely at the Wilpinjong Coal Mine.
- Increasing extent of open cut mining by relocating some of the key existing constraints: This alternative would provide access to additional ROM coal, however, it would require extensive realignment of the Sandy Hollow Gulgong Railway, increased realignment of public roads, powerlines and telecommunication services and an increased surface development footprint.
- Additional final void in final landform: This alternative would significantly reduce WCPL's operating costs associated with rehandling waste rock material to backfill the mined void. However, WCPL proposes to backfill the mined void within the Pit 8 Extension area to establish a free-draining final landform.

The Pit 8 Extension area and associated surface development footprint are considered the optimal extent and location for the Action based on the currently available information. However, the design of the Action will be refined during the detailed design process and the preparation of assessment documentation. This will include the development of measures to mitigate potential impacts on water resources, threatened ecological communities and threatened species habitat across the Action Area.

Nevertheless, the Modification Report (including a BDAR) will assess alternatives and avoidance options for the Action. This report will be provided to the Commonwealth DCCEEW upon lodgement, and will be made available for public comment when DPHI places the Modification Report is on public exhibition.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High

1.2.5 Information about the staged development

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Wilpinjong Approval Documents https://www.peabodyenergy.com/Operations/Austral..			High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High
#3.	Link	NSW Planning Portal https://majorprojects.planningportal.nsw.gov.au/..			High
#4.	Link	Significant impact guidelines 1.1 - Matters of National Environmental Significance https://www.dcceew.gov.au/sites/default/files/do..			High
#5.	Link	Significant impact guidelines 1.3: Coal seam gas and large coal mining developments https://www.dcceew.gov.au/sites/default/files/do..			High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 https://www.environment.nsw.gov.au/-/media/OEH/C..			High
#2.	Link	Interim Engaging with First Nations People and Communities on Assessments and Approvals https://www.dcceew.gov.au/sites/default/files/do..			High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation’s environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Peabody Sustainability Overview https://www.peabodyenergy.com/Sustainability/sus..			High
#2.	Link	Wilpinjong Approval Documents https://www.peabodyenergy.com/Operations/Austral..			High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High
#3.	Document	Att 2 - MNES Flora Review.pdf Wilpinjong MNES Flora Review	19/12/2024	No	High
#4.	Document	Att 3 - MNES Fauna Review - Assessment Version.pdf MNES Fauna Review - Contains locations of fauna on NSW Sensitive Species list	13/02/2025	Yes	High
#5.	Document	Att 3 - MNES Fauna Review.pdf Wilpinjong MNES Fauna Review. Sensitive species redacted.	13/02/2025	No	High
#6.	Link	Box-Gum Woodland CEEC http://www.environment.gov.au/biodiversity/threa..			High
#7.	Link	Central Hunter Valley Eucalypt Forest and Woodland CEEC listed under the EPBC Act http://www.environment.gov.au/biodiversity/threa..			High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High
#3.	Link	New South Wales Seamless Geology dataset https://search.geoscience.nsw.gov.au/product/925..			High
#4.	Link	Soil Landscapes of Central and Eastern NSW https://datasets.seed.nsw.gov.au/dataset/publish..			High
#5.	Link				

The Australian Soil Classification soil types https://www.publish.csiro.au/ebook/download/pdf/..		High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High
#3.	Link	Hydrosimulations - WCPL Groundwater Assessment https://majorprojects.planningportal.nsw.gov.au/..			High
#4.	Link	Wilpinjong Coal Mine Rehabilitation Strategy https://majorprojects.planningportal.nsw.gov.au/..			High
#5.	Link	Wilpinjong Extension Project - Environmental Impact Statement https://majorprojects.planningportal.nsw.gov.au/..			High
#6.	Link	WRM - Wilpinjong Extension Project Surface Water Assessment https://majorprojects.planningportal.nsw.gov.au/..			High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 2 - MNES Flora Review.pdf Wilpinjong MNES Flora Review	19/12/2024	No	High
#2.	Document	Att 3 - MNES Fauna Review - Assessment Version.pdf MNES Fauna Review - Contains locations of fauna on NSW Sensitive Species list	13/02/2025	Yes	High
#3.	Document	Att 3 - MNES Fauna Review.pdf Wilpinjong MNES Fauna Review. Sensitive species redacted.	13/02/2025	No	High

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 2 - MNES Flora Review.pdf Wilpinjong MNES Flora Review	19/12/2024	No	High
#2.	Document	Att 3 - MNES Fauna Review - Assessment Version.pdf MNES Fauna Review - Contains locations of fauna on NSW	13/02/2025	Yes	High

	Sensitive Species list				
#3.	Document	Att 3 - MNES Fauna Review.pdf Wilpinjong MNES Fauna Review. Sensitive species redacted.	13/02/2025	No	High

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3 - MNES Fauna Review - Assessment Version.pdf MNES Fauna Review - Contains locations of fauna on NSW Sensitive Species list	13/02/2025	Yes	High
#2.	Document	Att 3 - MNES Fauna Review.pdf Wilpinjong MNES Fauna Review. Sensitive species redacted.	13/02/2025	No	High

4.1.9.5 (Water resource in relation to large coal mining development or coal seam gas) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High
#3.	Link	NSW Aquifer Interference Policy https://water.dpie.nsw.gov.au/__data/assets/pdf_..			High
#4.	Link	Significant impact guidelines 1.3: Coal seam gas and large coal mining developments https://www.dcceew.gov.au/sites/default/files/do..			High
#5.	Link	WCPL Groundwater Assessment for Wilpinjong Extension Project https://majorprojects.planningportal.nsw.gov.au/..			High

4.1.9.10 (Water resource in relation to large coal mining development or coal seam gas) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Figures - Assessment Version.pdf Wilpinjong Figures. Contains locations of fauna on the NSW Sensitive Species List.	13/02/2025	Yes	High
#2.	Document	Att 1 - Figures.pdf Wilpinjong Figures. Sensitive fauna redacted.	13/02/2025	No	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW
Representative's name	Jon Degotardi
Representative's job title	Approvals Manager
Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com
Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ By checking this box, I, **Jon Degotardi of Wilpinjong Coal Pty Ltd**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	87104594694
Organisation name	Wilpinjong Coal Pty Ltd
Organisation address	2850 NSW
Representative's name	Jon Degotardi

Representative's job title	Approvals Manager
Phone	02 4294 7233
Email	jdegotardi@peabodyenergy.com
Address	1434 Ulan-Wollar Road, Wilpinjong NSW 2850

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Jon Degotardi of Wilpinjong Coal Pty Ltd**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Jon Degotardi of Wilpinjong Coal Pty Ltd**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *