Coppabella Mine Humbug Gully Project

Application Number: **02380** Commencement Date: **30/04/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Coppabella Mine Humbug Gully Project

1.1.2 Project industry type *

Mining

1.1.3 Project industry sub-type

Coal

1.1.4 Estimated start date *

01/06/2028

1.1.4 Estimated end date *

01/06/2042

1.2 Proposed Action details

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

Background of existing operations

The Coppabella Coal Mine (COP) is an open cut coal mining operation that produces pulverised coal injection (PCI) coal for export. The COP is located approximately 10 kilometres (km) north-east of Coppabella township and ~31 km south-west of Nebo in Central Queensland (QLD) within the Isaac Regional Council (IRC) local government area (LGA). Peabody Energy Australia PCI (C&M Management) Pty Limited (Peabody) operate the COP which is owned by several joint venture partners that form the Coppabella and Moorvale Joint Venture (CMJV). The location of COP is shown in **Figure 1**.

The COP is located on mining leases (ML) 70161, ML 70163, ML 70164, ML 70236, and ML 70237, granted by the State Government of QLD under *the Mineral Resources Act 1989* (MR Act). Operations at the COP are authorised by Environmental Authority (EA) EPML00579213, issued under the QLD *Environmental Protection Act 1994* (EP Act).

Mining activities at the COP commenced in 1998 and comprise mining at four pits, namely Creek Pit, Johnson Pit, South Pit and East Pit. Mining at the COP targets the Macarthur Seam of the Rangal Coal Measures and variously its constituent sub-seams including the Phillips and Leichhardt Seams.

The COP operations include seven out of pit spoil dumps (OOPD); a coal handling and preparation plant (CHPP); a coal reject co-disposal area; a raw water dam; a Run-of-Mine (ROM) coal stockpile area; and several small sediment and surface water containment dams generally located on creeks or gullies. Product coal is loaded via the COP train load-out facility and transported to Dalrymple Bay Coal Terminal for export.

Peabody intends to continue mining operations at the COP to extract existing coal reserves within the East Pit, which will extend north towards the northern boundary of ML 70236. The Humbug Gully is a tributary of Harrybrandt Creek, which commences to the northwest of the COP and flows in a south-easterly direction, traversing the northern extents of ML 70164 and ML 70236.

Overview of the Action

The Action comprises the ongoing mining activities in the north of ML 70236, and diversion of the Humbug Gully. This diversion is required to facilitate the ongoing mining through the Humbug Gully. The Humbug Gully Mining Area (the HG Mining Area) and the Humbug Gully Diversion (the HG Diversion) are collectively referred to as ‘the Action’.

The HG Diversion is proposed upstream of the HG Mining Area and will divert flow south to Harrybrandt Creek via the previously authorised North Arm to South Arm Diversion (Northern Replacement Channel) and South Arm Diversion (Southern Replacement Channel). The Northern Replacement Channel and Southern Replacement Channel do not form part of the Action. An overview of the Action is illustrated in **Figure 2**.

The Action will require vegetation clearing, civil works, establishment of temporary laydowns and access tracks, blasting, haulage (of waste rock, coal and materials) and open cut mining. These activities will have direct impacts to terrestrial and aquatic ecology values, water resources (surface and groundwater), air quality, and to sensitive receptors (resulting from air, noise and vibration). Indirect impacts may result in the form of edge effects to terrestrial and aquatic ecology values and downstream impacts resulting from the change in flow conditions in Humbug Gully downstream of the HG Diversion and HG Mining Area.

The Action comprises the required activities proposed within two project areas (i.e. the HG Diversion and HG Mining Area outlined on **Figure 2**) totaling 546.62 hectares (ha), of which the direct disturbance footprint is 246.5 ha and avoidance area is 300.12 ha.

Detailed description of the Action

The HG Diversion will be a permanent watercourse diversion in accordance with the ‘Guideline: Works that interfere with water in a watercourse – watercourse diversions’ (Department of Natural Resources, Mines and Energy (DNRM),2014)). The HG Diversion will comprise a 1.3 km diversion channel with 1:4 slopes requiring the excavation of approximately 0.9 million bank cubic meters of material. A Detailed Design – Technical Specification Report has been developed by Alluvium (2023) for the HG Diversion and is provided under **Attachment A**. The HG Diversion will include the following:

- Construction of all temporary access and haulage routes and maintenance of these areas as required.
- Vegetation clearing.
- Formation of the HG Diversion channel will involve the excavation of a new channel from the take-off location at Humbug Gully through to the tie-in with the Northern Replacement Channel (refer to **Figure 2**). The civil works will include gradual transitions into existing landform features and the civil works will be minimised where possible without compromising the design. The excavations will form the design longitudinal gradients, bank batters at design slopes and benches. All benches will be constructed with a crossfall towards the channel centreline for free drainage.

- Stockpiling of stripped topsoil and excavated waste soil and rock for use in future maintenance and rehabilitation activities.
- Foundation preparation and placement of fill will comprise of granular filter placement or rock placement (in accordance with design specifications).
- Soil and subsoil amelioration, revegetation, and reinstatement of temporarily disturbed areas.
- The construction of the diversion will result in the creation of new off-lease landforms (due to the large volume of cut material from the diversion channels).

Following completion of the HG Diversion, mining of the HG Mining Area will commence as per current mining methods at the COP and will progress towards the northern boundary of ML 70236. Refer to **Figure 2**.

Activities in the HG Mining Area will comprise the ongoing and current open cut mining techniques employed at COP and will include the following:

- construction of temporary access tracks and maintenance of these areas as required
- vegetation clearing
- topsoil stripping and stockpiling
- drill and blast of overburden (including through-seam blasting)
- development of OOPDs for management of overburden
- establishment of temporary hardstand areas as required (i.e. go line)
- establishment of haul roads
- development of in-pit-dumps (IPDs) as required
- coal mining and haulage to the existing CHPP
- ongoing progressive rehabilitation of disturbed areas with the aim of progressing to a final landform design
- ongoing progressive disposal of overburden to OOPDs and IPDs, and
- ongoing progressive disposal of CHPP rejects to the co-disposal facility.

Timing

The Action is proposed to begin 01 June 2028 (proposed construction of the HG Diversion) and mining activities within the HG Mining Area is planned to end 01 June 2042, followed by a two to four year period to finalise rehabilitation of this area (subject to approval of the Progressive Rehabilitation and Closure Plan under the QLD Environment Protection Act 1994 (EP ACT). The HG Diversion will be designed to achieve permanency.

Motivation why the Action is considered a Controlled Action

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) an Action requires approval from the Minister if it has, will have, or is likely to have, a significant impact on Matters of National Environmental Significance (MNES). Peabody consider the Action is likely to be considered a ‘Controlled Action’ requiring further assessment under the EPBC Act for impacts to threatened species and threatened ecological communities and a water resource in relation to coal seam gas development and large coal mining development. Details of which are outlined in the appropriate sections of this Referral.

Key Terms, Acronyms & References

The Key Terms, Acronyms & References used in this Referral application are provided in **Attachment J**.

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)

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

Background

The COP is traversed by several ephemeral creeks within the Isaac-Connors Sub-basin (Department of Environment and Science (DES), 2013) in the Fitzroy Basin. Thirty Mile Creek and its tributaries traverse the COP over ML 70161, ML 70163, and ML 70164, towards the south-east, outflowing to Harrybrandt Creek approximately 2 km south-east from the COP. Harrybrandt Creek outflows to Bee Creek, approximately 20 km further south-east. Bee Creek outflows to the Connors River in the Isaac River catchment, part of the Fitzroy River basin.

Peabody established two diversions at the COP to manage the flow of Thirty Mile Creek and its tributaries during the 1990s. The existing North Arm Diversion and Thirty Mile Creek Diversion (collectively referred to as 'the existing diversions') are shown on **Figure 2**. The North Arm Diversion channel is approximately 3.8 km long, commencing at the North Arm Levee, located north of Creek Pit and features four drop structures and a haul road crossing. The North Arm Diversion is in poor condition, and should any drop structures fail, it will be subject to considerable further instability. The Thirty Mile Creek Diversion is approximately 1.7 km long, featuring two drop structures and a haul road crossing and is generally unstable and devoid of vegetation.

Peabody has commenced the replacement of the existing diversions to better manage surface water flows over the COP, address instability issues and increase operational efficiency. The benefit of this approach will result in better environmental outcomes due to the contemporary design requirements outlined in the Detailed Design Report – Coppabella Diversions Design (Alluvium, 2023) provided in **Attachment A**.

Description of the staged development

The existing diversions will be replaced by the previously authorised North Arm to South Arm Diversion (Northern Replacement Channel) and South Arm Diversion (Southern Replacement Channel), depicted on **Figure 2**.

The Southern Replacement Channel comprises constructing a 1.8 km diversion channel with 1:4 slopes from the Thirty Mile Creek to Harrybrandt Creek. The Southern Replacement Channel aims to eliminate the requirement for remedial works on prior 'short term' solutions of Thirty Mile Creek Diversion Culvert upgrades and solve legacy issues associated with the existing creek diversions. The Northern Replacement Channel comprises two parts: constructing a 2.3 km diversion channel with 1:4 slopes and upgrading the Peak Downs Highway and Rail culverts due to the increased water flow anticipated. The Northern Replacement Channel eliminates the legacy issue associated with the existing North Arm diversion, which requires realignment and improves water management for road and rail infrastructure.

The Northern Replacement Channel and Southern Replacement Channel do not form part of the Action.

Relevance to the Action

The proposed Action will complete the existing diversion of the creek system. Construction of the Action is planned to commence in 2028 with estimated completion in 2029.

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 *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)*

The Action (comprising the HG Diversion and HG Mining Area) is subject to assessment and approval under the EPBC Act. Peabody anticipates the Action will be determined to be a 'controlled action' by the Commonwealth Minister of the Environment due to significant impacts on listed threatened species and threatened ecological communities (TECs), and likely significant impacts a water resource (in relation to a large coal mining development).

The Northern Replacement Channel and Southern Replacement Channel located on ML 70164 are the subject of the prior authorisation exemption under section 43A of the EPBC Act.

Commonwealth *Native Title Act 1993 (NT Act)*

The *Native Title Act 1993* (NT Act) provides recognition for the rights and interests over land and water possessed by Australian Indigenous people under traditional laws and customs. The NT Act sets out specified processes that must be followed to validate any 'future act' on land or waters with the potential to affect native title rights and interests.

The Barada Barna native title determination in 2016 found that native title (non-exclusive) exists along Humbug Gully and adjacent to the COP to the south (QCD2016/007).

Queensland *Water Act 2000*

Both Humbug Gully and Harrybrandt Creek meet the definition of watercourse under Section 1 of the *Water Act 2000*. As such, the proposed HG Diversion will require a water licence under the *Water Act 2000* to interfere with the flow of water in a watercourse. A Water Licence Application has been submitted and approval is anticipated during Q2 2024.

Queensland *Environmental Protection Act 1994* (EP Act)

Peabody is approved to conduct mining operations at the COP in accordance with the conditions set out in the Environmental Authority (EA) EPML0579213 (effective date: 13 April 2022), which was originally granted under the EP Act in 1998.

Queensland *Environmental Protection Regulation 2019* (EP Regulation)

In 2019, the Queensland EP Act was amended to include Section 41AA of the EP Regulation. The aim of Section 41AA is to achieve no net decline in water quality in the surface water basins that feed into the Great Barrier Reef. Since June 2021, all new or expanding projects that potentially impact the waters for the Great Barrier Reef are required to provide information about their Dissolved Inorganic Nitrogen (DIN) and Total Suspended Solids (TSS) load. The Action is required to assess potential impacts on water quality in accordance with the *Guideline - Reef discharge standards for industrial activities* (Department of Environment (DES), 2024) as per section 41AA of the EP Regulation.

Queensland *Mineral Resources Act 1989*

The COP comprises ML 70161 (granted: 13 August 1998), ML 70163 (granted: 14 May 1998), ML 70164 (granted: 13 August 1998), ML 70236 (granted: 18 April 2002), and ML 70237 (granted: 31 January 2002).

There are no proposed applications required under this Act to authorise the Action. The mining component of the Action will take place on ML 70236 and the HG Diversion will take place on mining development lease (MDL) MDL 494 (granted: 16 July 2015).

Commonwealth *EPBC Act Environmental Offsets Policy 2012,* Queensland *Environmental Offset Act 2014* and *Environmental Offsets Policy 2017*

Peabody anticipates the Action will require offsets under the EPBC Act Environmental Offsets Policy 2012*, Environmental Offset Act 2014* and Environmental Offsets Policy 2017 for significant residual impacts to MNES and/or MSES. Offsets under State and Commonwealth jurisdiction can be addressed together under a consolidated Environmental Offset Strategy. Peabody is working to identify appropriate offsets for the Action and will develop an Environmental Offset Strategy and Offset Area Management Plans in due course.

Queensland *Planning Act 2016*

Development approvals under the *Planning Act 2016* (Planning Act) are not required for infrastructure contained within an ML. As components of the Action are located outside of a ML (diversion infrastructure), they may require development approvals under the relevant local government planning scheme and Planning Regulation 2016.

Queensland *Vegetation Management Act 1999* (VM Act)

The VM Act regulates the clearing of vegetation in Queensland. Under the VM Act, clearing of remnant vegetation may require development approval under the Planning Act unless an exemption applies. The CMJV will address approval requirements under the VM Act for the off-lease HG Diversion prior to vegetation clearing works commencing. The clearing associated with the HG Mining Area is not subject to the VM Act.

Queensland *Aboriginal Cultural Heritage Act 2003* (ACH Act)

In Queensland, Aboriginal cultural heritage is protected under the Aboriginal Cultural Heritage Act 2003 (QLD) (the ACH Act) which intends to provide effective recognition, protection and conservation of Aboriginal cultural heritage.

Under the Act, a person carrying out an activity has a cultural heritage duty of care, where they must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage.

The cultural heritage duty of care can be met by acting:

- In compliance with the gazetted cultural heritage Duty of Care Guidelines (DoC Guidelines).
- Under an approved Cultural Heritage Management Plan (CHMP) developed under Part 7 of the ACH Act.
- In compliance with a native title agreement or another agreement with an Aboriginal Party that addresses cultural heritage.

The Barada Barna People are the statutory Aboriginal Party for the Project Area in accordance with the ACH Act. Peabody and the Barada Barna people have entered into a Cultural Heritage Management Plan (CHMP) agreement to satisfy the Duty of Care provisions in accordance with the ACH Act. The proposed diversion works will be reviewed and carried out in accordance with the CHMP. The CHMP in place with the Barada Barna people is provided under **Attachment K**.

The Queensland Heritage Act 1992

The Queensland Heritage Act 1992 (Heritage Act) provides for the protection and conservation of Queensland's non-Indigenous cultural heritage for the benefit of the community and future generations.

At a State level, the Heritage Act:

- Establishes the Queensland Heritage Council.
- Establishes the Queensland Heritage Register.
- Provides for the protection of Queensland's historical heritage places and areas.

At a local level, the Heritage Act:

- Requires each local government to identify places of local historical cultural heritage significance and record them in a local heritage register or in its planning scheme.
- Specifies that each place entered in a local heritage register must have enough information to identify the location and boundaries of the place and a statement about its heritage significance (s.114).

The Isaac Region Planning Scheme 2021 is the current planning scheme for Isaac Region LGA and includes policies for local heritage places in Part 5 - Tables of assessment and Part 7 - 7.2.8 Heritage overlay code and identifies heritage places within a heritage overlay (Heritage Overlay Map 9.2 - Rural Areas (north-east)).

There are no local heritage places listed within the Isaac Region Planning Scheme 2021 located within the project area.

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. *

The COP has a range of communication methods in place that enable it to share information with the local community, which include:

- site open days
- phone calls and meetings with landholders
- meetings with the Traditional Owners
- meetings with the Isaac Regional Council
- the Peabody Energy website - https://www.peabodyenergy.com and
- ad hoc community newsletters.

The COP has implemented a Complaint Response Protocol to respond to all community concerns. Complaints and meetings with stakeholders are logged in the consultation management system. A Public Notification and Consultation period (ten days) is required as part of the EPBC Referral process, which provides the public with the opportunity to submit a submission to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) during this period.

The following documents, that are relevant to this referral and public consultation, are attached as follows:

Cultural Heritage Management Plan (May, 2010) (**Attachment K**)

Indigenous Engagement

Peabody currently undertakes regular engagement with the Barada Barna Aboriginal Corporation (BBAC) via twice yearly Cultural Heritage (CH) Committee meetings. The most recent of these meetings was held on Barada Barna Country at their Bidgerley Cultural Centre outside Mackay on the 15th of March 2024. These meetings were established to build and maintain Peabody's relationship with the BBAC and to provide an opportunity for Peabody to provide regular operational updates on the COP, site cultural heritage updates, discuss vocational work opportunities/training etcetera and any other business or issues as relevant.

Additionally, Peabody regularly engages with the BBAC outside of the CH Committee meetings regarding employment and procurement opportunities at COP. Current collaborative opportunities and projects include the roll out of BBAC Cultural Awareness Training to site staff, direct contract opportunities at COP including earthworks, rehabilitation works, topsoil stripping, and indirect opportunities for people employment via our larger direct contractors e.g. Compass Group at Terowrie Camp.

The Cultural Heritage Management Plan in place with the Barada Barna is provided under **Attachment K**.

Towards Sustainable Mining - Communities of Interest – Enhanced Stakeholder Engagement

Peabody is currently in the process of implementing the Towards Sustainable Mining (TSM) ESG framework across its Australian assets. As part of this, a new program is being developed to support and enhance community and stakeholder engagement at Peabody's Bowen Basin assets including COP. Peabody has partnered with the Fitzroy Basin Association (FBA) to co-design a collaborative model for broad, sustainable and equitable community engagement including measurement and reporting. The new engagement framework and program will be developed with direct input from any communities adjacent to and with an interest in the COP and will be regularly reviewed. Development of the program is underway and engagement sessions are anticipated to commence in Q3/Q4 2024 and remain on-going.

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.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

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	65077890932
Organisation name	PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) PTY LTD
Organisation address	Peabody Australia, GPO Box 164, Brisbane, QLD. 4001

Referring party details

Name	Marianne Gibbons
Job title	Senior Manager - Environment & Approvals
Phone	+61427321361
Email	mgibbons@peabodyenergy.com

Address	Level 14, 31 Duncan Street, Fortitude Valley, QLD 4006

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? *

Yes

Person proposing to take the action organisation details

ABN/ACN	65077890932
Organisation name	PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) PTY LTD
Organisation address	Peabody Australia, GPO Box 164, Brisbane, QLD. 4001

Person proposing to take the action details

Name	Marianne Gibbons
Job title	Senior Manager - Environment & Approvals
Phone	+61427321361
Email	mgibbons@peabodyenergy.com
Address	Level 14, 31 Duncan Street, Fortitude Valley, QLD 4006

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

Yes

Joint Venture Name	Business Address	ABN/ACN	Responsible Person	Email
Coppabella and Moorvale Joint Venture	Lvl 14, 31 Duncan Street, Fortitude Valley QLD 4006	65077890932	Marianne Gibbons	mgibbons@peabodyenergy.com

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. *

The proponent of the Action is Peabody Energy Australia PCI (C&M Management) Pty Limited, as manager and operator on behalf of the Coppabella and Moorvale Joint Venture (CMJV). The CMJV comprises Peabody Coppabella Pty Ltd, Citic Australia, Coppabella Pty Ltd, NS Coal Pty Ltd, KC Resources Pty Ltd, and Winchester Coal Operations Pty Ltd.

Peabody Energy Australia PCI (C&M Management) Pty Limited has an excellent record of responsible environmental management and a strong commitment to the communities and the environments in which it operates. Peabody Energy Australia PCI (C&M Management) Pty Limited has no convictions for breaches of environmental management requirements and regularly reviews environmental performance and publicly reports on progress. Peabody Energy Australia PCI (C&M Management) Pty Limited is not, to its knowledge at 24 April 2024, subject to any other proceedings or actions relating to its management of the environment.

The CMJV was responsible for the Codrilla Open Cut Coal Mining and Processing Operation with Associated Infrastructure referral (EPBC number: 2009/4892). In addition to this, Peabody has various other entities and interests in Queensland and New South Wales that have, at various time, submitted Referral applications.

The CMJV focusses on environmental management as an integral part of its ordinary mining activities and has a good record of sustainable practices and engagement with stakeholders including its workforce, the local community, and regulators. The CMJV complies with its environmental approvals and monitors its compliance with its own policies and procedures implemented to give effect to the CMJV's obligations. The Proposed Action will be undertaken in accordance with the proponent's environmental policy and management framework. Peabody's policy Commitment to Health, Safety, Environment & Communities (Peabody, 2020), is provided under **Attachment B**. In addition, the CMJV maintains several environmental management and monitoring plans for the COP, which will form the basis of environmental management for the Action. These environmental management and monitoring plans in place at COP are outlined in **Attachment C** and include the following:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (ESCP) (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)
- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)
- Air Quality Management Plan (ERM, April 2023) (**Attachment C6**),
- Rehabilitation Management Plan (EcoLogical, June 2016) (**Attachment C7**), and
- Cultural Heritage Management Plan (May, 2010) (**Attachment K**).

Management plans specific to the Action, such as an Erosions and Sediment Control plan for the construction of the HG Diversion, will be developed and implemented prior to works commencing,

The management team has an ongoing focus on improving its ESG program and metrics to attain our own targets to meet or exceed industry expectations for greenhouse gas emission reduction, and energy use efficiency and progress of sustainability measures including beneficial waste practices and minimising impacts on biodiversity. The CMJV also undertakes progressive rehabilitation of mining related disturbances across its sites. As of December 2023, CMJV had rehabilitated 789 ha of mining related disturbance at Coppabella, predominately out of pit spoil dumps.

Further, Peabody participates in the Australian and Queensland Governments' 'Paddock to Reef Integrated Monitoring, Modelling and Reporting Program' (P2R Program). This program aims to monitor the progress and implementation of the Reef 2050 Water Quality Improvement Plan, the goal of which is to improve the quality of run off that enters into the Great Barrier Reef (GBR) from relevant catchments. Peabody participates in the P2R Program, in which their agricultural land within the GBR catchments is subject to water quality run off monitoring and trials. As a significant rural landholder in the Fitzroy basin (a GBR catchment), Peabody is proactive towards assessing its land management practices (which are outside operational parts of mining leases) against the objectives of the P2R Program. Peabody has engaged the services of a rural property management consultant to undertaken land audits in consultation with the relevant property agistees and provide Peabody with recommendations for changes to current practices, introduction of suitable monitoring programs or improvements to property infrastructure. Peabody will then work with each agistee in the context of the relevant agistment agreement to deliver industry standard and beyond land management practices in the interests of mitigating impacts to the GBR as per the P2R Program objectives.

In summary the CMJV and Peabody (as manager and operator on behalf the CMJV) is a responsible environmental manager of all of its interests.

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

Peabody's policy *Commitment to Health, Safety, Environment & Communities* (Peabody, 2020), is summarised below and provided under **Attachment B**.

Peabody commit to safety and health as a way of life. In addition, we take responsibility for minimising impacts on the environment, providing benefits to our communities and restoring the land for future generations.

Our vision is to operate safe, healthy and environmentally responsible workplaces that are incident free. Safety and health as well as environmental sustainability are core Peabody values and are integrated into all areas of our business. Our goal is to eliminate all workplace incidents, including injuries and occupational illnesses, and mitigate environmental impacts.

In addition, Peabody's approach to sustainability is grounded in environmental, social, and governance practices that deliver further value across our business. As part of our approach, we utilize a risk management framework to assess risks and opportunities across our company and build actionable performance goals. We believe that coal will continue to be essential in the production of affordable, reliable, and secure energy and steel. We will continue to strengthen our position by aligning our strategy and practices with the goals of our stakeholders and expectations of our shareholders.

Peabody believe that good ESG practices are good business practices that support sustainability and resilience. We are embracing a future in which issues that are material to our ESG strategy are both risks as well as opportunities to differentiate ourselves as the Coal Producer of Choice. This focus, coupled with our commitment to sustainability, will drive the future success of our business. As a part of this commitment, we continue to review our current programs and improve our environmental, social, and governance efforts in ways that mitigate risk and create value.

Peabody's publishes annual sustainability reports which provides an overview of the company's sustainability practises across all operations. The *Peabody 2024 Sustainability Report* is provided under **Attachment D**.

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	65077890932
Organisation name	PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) PTY LTD
Organisation address	Peabody Australia, GPO Box 164, Brisbane, QLD. 4001

Proposed designated proponent details

Name	Marianne Gibbons
Job title	Senior Manager - Environment & Approvals
Phone	+61427321361
Email	mgibbons@peabodyenergy.com
Address	Level 14, 31 Duncan Street, Fortitude Valley, QLD 4006

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	65077890932
Organisation name	PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) PTY LTD
Organisation address	Peabody Australia, GPO Box 164, Brisbane, QLD. 4001
Representative's name	Marianne Gibbons
Representative's job title	Senior Manager - Environment & Approvals
Phone	+61427321361

Email	mgibbons@peabodyenergy.com
Address	Level 14, 31 Duncan Street, Fortitude Valley, QLD 4006

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.

Same as Referring party information.

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

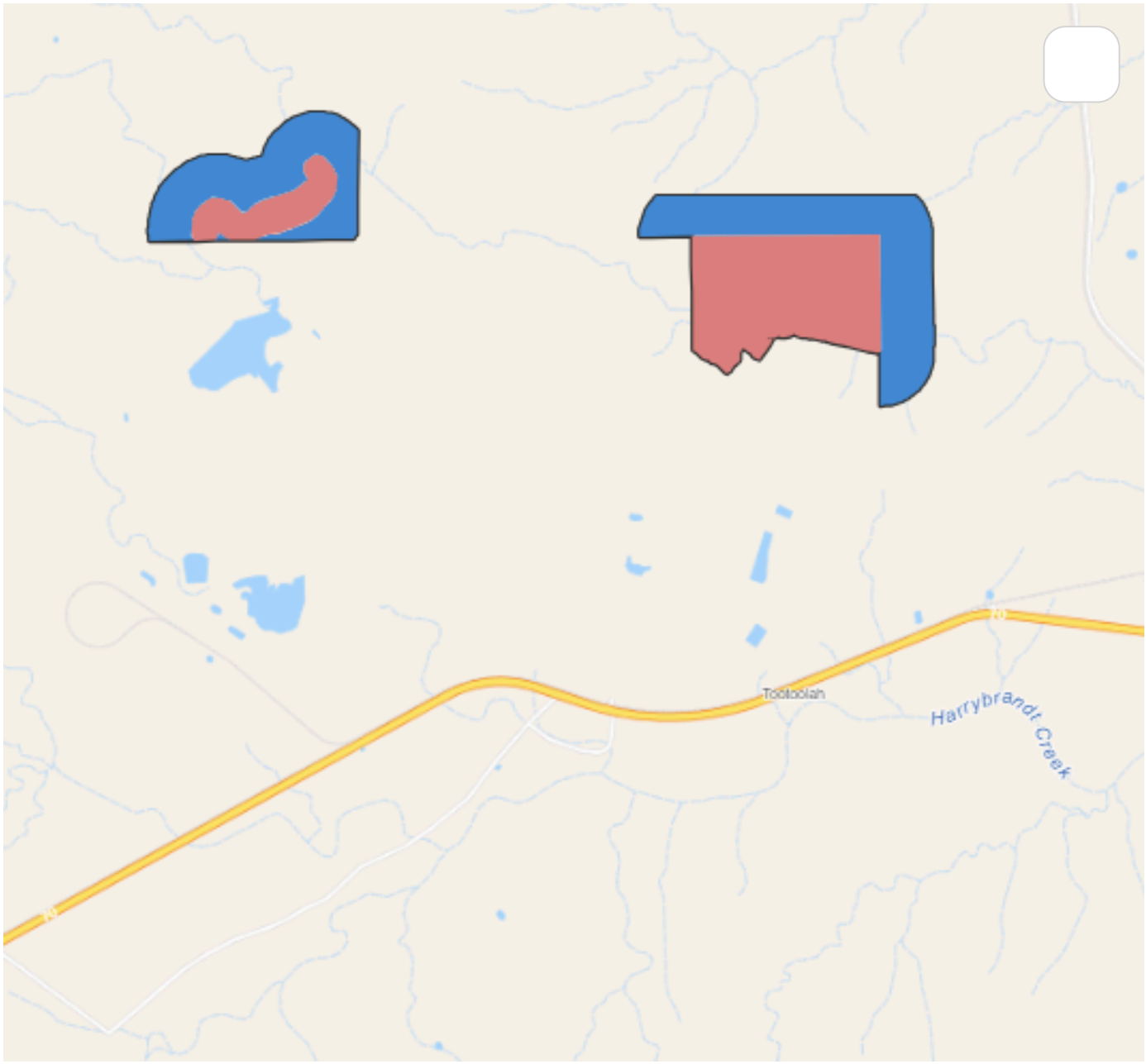
1.4 Payment details: Payment allocation

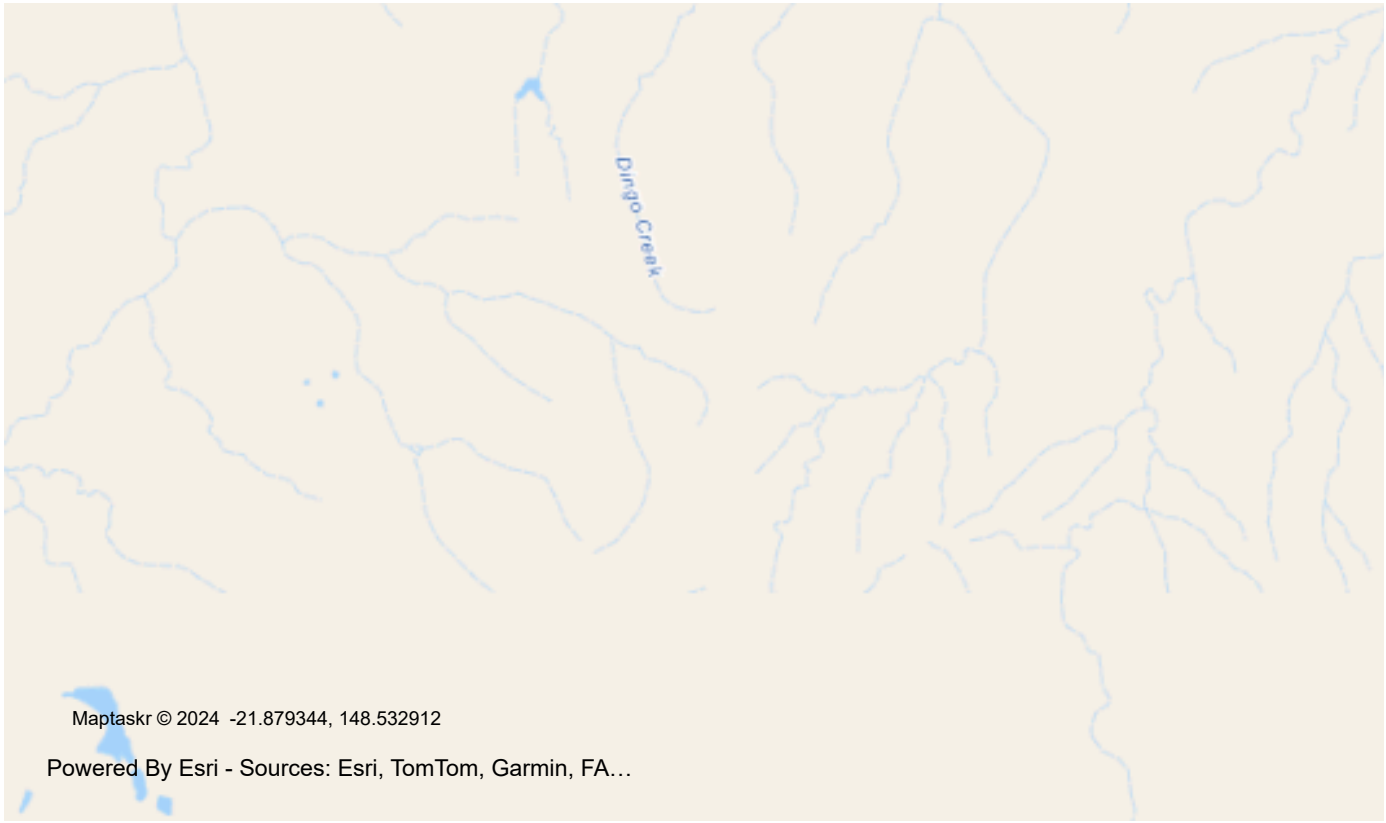
1.4.11 Who would you like to allocate as the entity responsible for payment? *

Referring party

2. Location

2.1 Project footprint





Project Area: 548.2 Ha Disturbance Footprint: 247.21 Ha Avoidance Area: 300.98 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Coppabella Coal Mine, 338 Spring Creek Road, Coppabella, Queensland.

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

Queensland

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 Project Area is situated within tenements ML 70236, ML 70386, ML 70387 and MDL 494 (refer to **Figure 2**). These tenements are under the ownership of Peabody. ML 70236, ML 70386, ML 70387 and MDL 494 are located on freehold tenure Lot 1 on SP107309.

3. Existing environment

3.1 Physical description

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

The COP is located ~10 km north-east of Coppabella township and ~31 km south-west of Nebo and is accessed via the Coppabella Mine Access Road from the Peak Downs Highway. As the Action involves the ongoing existing mining operations, there will be no need for new roads or modifications to current roads. Existing infrastructure, including access roads and haul roads, will continue to be used. The Project Area is located on land zoned as rural. No re-zoning is required for the Action.

Land within the Project Area (**Figure 2**) has been subject to historical disturbance, mostly associated with cattle grazing. The dominant pre-mining land use was cattle grazing on native grasses with the site experiencing some collective clearing, where pre-mining land capability was suitable for agricultural or grazing uses. Currently, the Project Area is located within a modified landscape, impacted largely by agricultural and mining land uses.

The vegetation within the Project Area consists of predominantly remnant vegetation, composed of *Eucalyptus* and *Corymbia* spp. woodlands. All vegetation communities display varying levels of degradation associated with impacts of grazing pressure and occasionally the clearing/thinning of canopy trees.

Non-remnant vegetation within the Project Area around Harrybrandt Creek includes cleared areas that have been seeded with non-native grass species. These areas have been subject to historical clearing/thinning, pasture improvement and weed encroachment. The ground layer within these non-remnant areas is dominated by non-native species, namely *Stylosanthes scabra*, *Cenchrus ciliaris* and *Melinis repens*.

All watercourses and drainage features in the vicinity of the Project Area are ephemeral and only flow in response to rainfall of sufficient intensity and duration to generate runoff.

State mapping identifies two lacustrine wetlands within the vicinity of the Project Area, namely Receiving Environment Monitoring Program (REMP) sampling sites SPCK DM2 and 30 MNAL (the REMP Design Document (GAUGE, 2022) is provided in **Attachment C5** and the REMP Report (GAUGE, 2022) is provided in **Attachment E**). These sites are both constructed water-holding facilities associated with COP. Ground-truthing confirms that these wetlands are of low to moderate aquatic ecosystem value (ESP, 2024). The Preliminary Aquatic Ecology Assessment (ESP, 2024) is provided under **Attachment F**.

The Project Area is located in the northern Bowen Basin, adjacent to other large coal mining operations and areas subject of historical clearing for agriculture. As such, the local area and region is generally disturbed, exhibiting exotic species, extensive non-remnant areas and eroded landforms.

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

The Project Area is located in the Bowen Basin, where mining and petroleum exploration activities have been conducted for several decades. The Action comprises continuing existing mining operations toward the northern boundary of ML 70236 (HG Mining Area) and the diversion of Humbug Gully (HG Diversion).

The current land use within the Project Area and surrounding area is predominantly cattle grazing. Several existing coal mines surround the Project Area, including the South Walker Creek Mine to the north of COP, Moorvale Mine to the south of COP and Broadmeadow East Mine to the west of COP. Larger stockyards, troughs and cleared grazing paddocks neighbouring the Project Area. Adjacent to the Project Area are more extensive stockyards, troughs, and cleared grazing paddocks.

Within the COP, there are several easements and associated infrastructure, including public roads and road reserves, stock route, a railway station and siding, powerlines, and electricity infrastructure. Several unsealed roads and cattle roads are located near the Project Area, but there are no easements or associated infrastructure.

Proposed uses for the Project Area contained within the COP MLs will comprise of various post mine land uses (PMLU) to be confirmed following approval of the PRCP by the QLD Department of Environment, Science and Innovation (DESI). The PMLU proposed will include cattle grazing from natural environments. The HG Diversion has been designed to function on a permanent basis following rehabilitation and closure of the COP.

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

The Project Area does not have any outstanding natural features or any other important or unique values, and characteristic of modified habitat typically used for cattle grazing activities.

The Dipperu National Park is located approximately 20 km southeast of the Project Area and will not be impacted by the Action.

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 natural topography of the Project Area is generally inclined to the southeast, away from the Kerlong Range to the west. Elevations range from 240 meters (m) Australian Height Datum (AHD) northwest of the Project Area, where the proposed diversion will be located, to 210 m AHD, where Humbug Gully meets Harrybrandt Creek in the southwest.

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.

Desktop and field assessments were undertaken to identify and describe terrestrial ecology MNES and describe the likelihood of significant impacts. The results are detailed in the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**). The survey methodologies are outlined in Section E of **Attachment G**, and summarised here:

- Methodology for surveying and mapping of regional ecosystems and vegetation
- communities in Queensland (Neldner et al., 2022)
- Vegetation in Australian Environment (Specht, 1970)
- Survey Guidelines for Australia's Threatened Birds (DEWHA, 2010)
- Survey Guidelines for Australia's Threatened Mammals (SEWPaC, 2011)
- National Recovery Plan for the EPBC Act listed Koala (DAWE, 2022b)
- Terrestrial Vertebrate Fauna Survey Guidelines for Queensland (Queensland Herbarium, 2018)
- A review of koala habitat assessment criteria and methods (Youngentob et al., 2021), and
- Species specific guidelines published by the Commonwealth Government (DCCEEW, 2023d).

One 10-day survey event was conducted in November to December 2023 for MNES flora and fauna species assessed as known or likely to occur within the Ecological Study Area. Survey was undertaken at representative locations across the Ecological Study Area within vegetation community/ habitat types. Survey concentrated within a 500 m buffer area around the Disturbance Footprint, along Harrybrandt Creek and Humbug Gully downstream of the HG Diversion, and in MLs 70384, 70385, 70386 and 70387. Details of the methodology is outlined in Section 3 of **Attachment G**. The Likelihood of Occurrence Assessment for MNES is detailed under Appendix B of **Attachment G**.

Flora

Black Iron Box and King Blue-grass were not identified during the survey. The Ecological Study Area is dominated by Eucalyptus woodland communities, dominated by Blue Gum (*E. tereticornis*), Poplar Box (*Eucalyptus populnea*), Poplar Gum (*E. platyphylla*), Ironbark (*E. crebra*), and River Red Gum (*E. camaldulensis*). Brigalow (*Acacia harpophylla*) (Brigalow) is also present in open forest to woodland communities that are analogous to Brigalow Threatened Ecological Community (TEC), discussed later in this Referral and detailed on **Figure 3** and in section 4.4.1 of **Attachment G**.

Five weed species listed as Weeds of National Significance and/or restricted matter under the *Biosecurity Act 2014* (Queensland) were recorded. This included lantana (*Lantana camara*), velvet prickly-pear (*Opuntia tomentosa*), harrisia cactus (*Harrisia martinii*), bellyache bush (*Jatropha gossypiifolia*) and parthenium (*Parthenium hysterophorus*)

Fauna

Greater glider (*Petauroides volans / Petauroides armillatus*) (Endangered under the EPBC Act)

During field survey, Greater glider was observed 16 times in remnant eucalypt woodland within the Ecological Study Area. The majority of records were adjacent to watercourses within Regional Ecosystems (REs) 11.3.25 and 11.3.4. The species was frequently observed feeding in *Corymbia tessellaris* and emerging from medium to large hollows in *Eucalyptus tereticornis* and *E. camaldulensis*. Greater glider was also recorded in eucalypt woodlands away from watercourses including REs 11.5.3, 11.5.2 and 11.5.8c where denning habitat (medium to large hollows in *Eucalyptus populnea, E. crebra* and *E. platyphylla*) and feed trees (*E. populnea, Corymbia tessellaris* and *E. crebra*) were abundant. The species is likely utilising large areas of remnant eucalypt woodland within the landscape.

The Ecological Study Area contains 1049.93 ha of habitat for the species, comprising 20.10 ha of preferred habitat within the disturbance footprint and 199.09 ha of suitable habitat within the disturbance footprint.

The locations of Greater Glider observations and habitat is outlined on **Figure 4** and discussed in detail under Section 4.4.3.1 of the of **Attachment G**.

Koala (*Phascolarctos cinereus)* (Endangered under the EPBC Act)

A total of nine koala observations were recorded within the Ecological Study Area during the survey. It is likely that koala were moving and therefore the total number of distinct individuals is unknown. Koala were also recorded calling during bio-acoustic surveys at a bio-acoustic recorder site at Humbug Gully. Multiple scratches and scats attributable koala were also recorded along Humbug Gully and Harrybrandt Creek. Koala were recorded in riparian REs associated with Humbug Gully and Harrybrandt Creek. Koala are known to utilise all types of eucalypt woodland across its range where Locally Important Koala Trees (LIKTs) are abundant.

The Ecological Study Area contains 1049.93 ha of habitat for the species, comprising 20.10 ha of preferred habitat within the disturbance footprint and 199.09 ha of suitable habitat within the disturbance footprint.

The locations of koala observations and habitat is presented in **Figure 5** and discussed in detail under Section 4.4.3.2 of the of **Attachment G**.

Ornamental snake (Denisonia maculata) (Vulnerable under the EPBC Act)

One ornamental snake was identified within the Disturbance footprint. The individual was identified along a sandy creek bed of Humbug Gully. The creek had flowed the previous day and the frog (food source) diversity and abundance at the time of survey was high. Vegetation adjacent to Humbug Gully is dominated by *Casuarina cristata* and *Acacia harpophylla* (RE 11.5.16) and occurs over small steep gullies. These areas have a higher clay content and, in some areas, form gilgais. The wide channel of Humbug Gully has fine sediment deposits that pool water along the sides of the low flow channel. Deep cracks were not visible within Humbug Gully; however, the species is likely seeking refuge in inconspicuous smaller cracks within the soil profile or within other microrefugia in the landscape. There is abundant woody debris along Humbug Gully as well as a dense mat of *Imperata cylindrica*, *Megathyrsusmaximus* and *Melinis repens* over islands and banks of the watercourse.

In addition, previous surveys in the area have identified ornamental snake along Humbug gully in similar habitat (McCollum, 2011).

The Ecological Study Area contains 177.33 ha of habitat for the species, comprising 29.48 ha of preferred habitat within the disturbance footprint.

The location of the ornamental snake observation and habitat is presented in **Figure 6** and discussed in detail under Section 4.4.3.3 of the of **Attachment G**.

Squatter pigeon (southern) (*Geophaps scripta scripta*) (Vulnerable under the EPBC Act)

Squatter pigeon (southern) was observed eight times during the field survey, including two observations within the Ecological Study Area. Most records were from the western portion of the Ecological Study Area along Spring Creek Road in association with cattle troughs adjacent to the road. The species was also recorded along Harrybrandt Creek

Ground cover was variable throughout the Ecological Study Area in terms of composition (native and non-native species) and percent ground cover. The majority of areas contained a mixture of native and non-native ground cover species and total ground cover was generally suitable for squatter pigeon breeding and foraging habitat (less than 33% cover) (DotE, 2015a). Areas with a higher ground cover percentage were in non-grazed areas with a sparse tree canopy (RE 11.5.8c in the Disturbance Footprint). It is likely that most areas within the Ecological Study Area experience a fluctuating ground cover through rain, grazing and fire.

The Ecological Study Area contains 1046.33 ha of habitat for the species, comprising 42.63 ha of preferred habitat within the disturbance footprint and 175.51 ha of suitable habitat within the disturbance footprint.

The location of the Squatter pigeon (southern) observation and habitat is presented in Figure 7D and Section 4.4.3.4 of the of **Attachment G**.

White-throated needletail (*Hirundapus caudacutus*) (Vulnerable and migratory under the EPBC Act)

White-throated needletail was not recorded during field surveys within the Ecological Study Area, but has previously been recorded from the surrounding landscape (ALA, 2023). The species is almost exclusively aerial. In the non-breeding season in Australia, the species can occur over most habitat types. The species is likely to occasionally utilise airspace over the Ecological Study Area for foraging, however predominantly an aerial species in Australia and roosting is very unlikely.

The Ecological Study Area contains 1264.74 ha of habitat for the species, comprising 238.58 ha of marginal habitat within the disturbance footprint.

The extent of habitat is outlined in detail in Figure 7E and under Section 4.4.3.5 of the of **Attachment G**.

Fork-tailed swift (*Apus pacificus*) (Migratory under the EPBC Act)

A flock of 20-40 fork-tailed swifts were observed high in the airspace above the Ecological Study Area at Humbug Gully. The species is likely to utilise airspace over the Ecological Study Area for foraging. The species is predominantly aerial in Australia with only one record of the species roosting in Australia (Newell, 1930). 253.10 ha of marginal habitat is present in the disturbance area.

The extent of habitat is outlined in detail in Figure 8 and under Section 4.4.4.1 of **Attachment G**.

Other Fauna

Survey records from the Study Area (E2M, 2023) identified, in addition to the species discussed above, the short-beaked echidna (*Tachyglossusaculeatus*) and several frog species. WildNet records in the area recorded one coastal sheathtail bat (*Taphozous australis*). The Atlas of Living Australia records include white-throated needletail (*Hirundapuscaudacutus*), Australian painted snipe (*Rostratula australis*) and black-faced monarch (*Monarcha melanopsis*) (E2M, 2023) in the region. These species have a low likelihood of occurrence in the Study Area and were not recorded during surveys. Five pest fauna species were recorded during surveys, namley Cane toad (*Rhinella marina*), Cat (*Felis catus*), Rabbit (*Oryctolagus cuniculus*), Wild dog (*Canis lupusdingo*), and Pig (*Sus scrofa*).

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

The Project Area is composed predominantly of intact, remnant *Eucalyptus* and *Corymbia* spp. woodlands situated on gently undulating plains of Caincozoic sand deposits and alluvial channels associated with Humbug Gully and Harrybrandt Creek. Patches of non-remnant vegetation exist around Harrybrandt Creek, with ground cover dominated by non-native grasses, *Stylosanthes scabra*, *Cenchrus ciliaris* and *Melinis repens*.

Soil within the Project Area is typically sandy, with small areas of higher clay content. These include Cainozoic alluvial plains and piedmont fans, Cainozoic clay deposits, gently undulating plains; and Cainozoic sand deposits, extensive flat or gently undulating plains.

Seven REs were identified including REs 11.3.4, 11.3.9, 11.3.25, 11.5.2, 11.5.3, 11.5.8c, and 11.5.16 (**Figure 3**) and are discussed in detail in Section 4.2 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Brigalow TEC

Of the REs ground truthed in the Ecological Study Area, one community (RE 11.5.9) is analogous to Brigalow (Acacia harpophylla dominant and co-dominant) – an Endangered TEC. RE 11.5.16 *Acacia harpophylla* and/or *Casuarina cristate* open forest to woodland is described as *Acacia harpophylla* or *Casuarina cristata* open forest to woodland in depressions on Cainozoic sand plains. Variation occurred across the Project Area with both trees (*Acacia harpophylla andCasuarina cristata*) occurring at varying dominance and density. Other trees in the canopy include *Eucalyptus populnea, Terminalia oblongata, Flindersia dissosperma* and *Lysiphyllum*

hookeri. The subcanopy and shrub layer often included a scrub understory with dry rainforest influence including *Psydrax odorata, Erythroxylum australe, Geijera salicifolia, Denhamia cunninghamii, Carissa ovata, Cynanchum viminale, Leichhardtia viridiflora, Capparis lasiantha, C. mitchellii, Alectryon diversifolius,* and *Diospyros humilis*. The ground layer was sparse and dominated by native grasses. Common species were *Paspalidium distans, Heteropogon contortus, Sporobolus caroli, Ancistrachne uncinulata*, *Cenchrus ciliaris, Megathyrsus maximus,* and *Cheilanthes distans*. This vegetation community occurred in wetter areas around drainage lines and low points accumulating a higher clay content. This resulted in some areas with gilgai microrelief within the Project Area.

Based on the field investigations, the Ecological Study Area has been mapped as containing 95.75 ha of Brigalow TEC, including 10.69 ha within the Disturbance footprint.

The extent of Brigalow within the Ecological Study Area is outlined on **Figure 3**. Further details of the Brigalow TEC are described in Section 4.4.1 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Other Vegetation Communities Identified

In addition to Brigalow TEC (RE 11.5.9) the following vegetation communities were identified in the Ecological Study Area and are described in detail in Section 4.2 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**):

- RE 11.3.4: *Eucalyptus tereticornis* and *Eucalyptus spp*. woodland on alluvial plans:
- RE 11.3.9: *Eucalyptus platyphylla* woodland on alluvial plans
- RE 11.3.25: *Eucalyptus tereticornis* and *E. camaldulensis* woodland fringing watercourses
- RE 11.5.2: *Eucalyuptus crebra* woodland on gently undulating plains
- RE 11.5.3: *Eucalyptus populnea* woodland on gently undulating plains, and
- RE 11.5.8c: *Eucalyptus platyphylla* dominated woodland on gently undulating plains.

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.

There are no Commonwealth heritage places, state or local places recognised as having heritage values within the Project Area. The Queensland Heritage Register (2024) includes no culturally significant sites in the general vicinity of the Project Area. The closest significant site is Nebo Hotel, located in Nebo, 28 km north-east of the Project Area.

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

The COP is located on land subject to a Native Title claim determined in June 2016. The Barada Barna people represented by the Barada Barna Aboriginal Corporation are the determined Native Title Holders (non-exclusive). However, there is no native title determination for the Project Area.

Indigenous heritage values within the Project Area are currently managed under a Cultural Heritage Management Plan, executed on 2 May 2010 with the Barada Barna People and attached under **Attachment K**. In addition, Peabody also has several other agreements in place with the Traditional Owners of the land and Compensation Agreements with the directly affected landholders.

As clearing progresses, assessment, management and relocation of any cultural heritage sites identified within the disturbance footprint (**Figure 2**) will be undertaken in accordance with the agreed processes provided in the CHMP. All Indigenous cultural heritage clearance activities will be undertaken in accordance with the Queensland ACH Act.

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. *

Surface Water

The COP is within the Isaac-Connors Sub-basin of the Fitzroy Basin (WQ1301), within the north the Fitzroy Basin, where the Connors River converges with the Isaac River before draining into the Mackenzie River. The Isaac River sub-basin covers an area of approximately 22,325 km2. Natural waterways in the region are typically temporary or ephemeral streams, which are dry for most of the year. They flow for a short time following rainfall events, which are more common in the wet season and may contain intermittent pools or permanent waterholes (dependent on the season and substrate type).

The waterways located within the Project Area are part of the Harrybrandt Creek catchment, a part of the Isaac River catchment. Thirty Mile Creek and its tributaries traverse ML 70161, ML 70163, and ML 70164, towards the south-east, outflowing to Harrybrandt Creek approximately 2km south-east from COP. Harrybrandt Creek and its tributaries flow into Bee Creek and Funnel Creek, outflowing to the Connors River approximately 100 km downstream. The Connors River forms braided channels on the floodplain, and discharges to the Isaac River. This confluence feeds into the Mackenzie River, then the Fitzroy River, which outflows to the Coral Sea southeast of Rockhampton.

The environmental values associated with the waterways at and downstream of COP are:

- aquatic ecosystems
- primary Industries - stock water, irrigation
- recreation and aesthetics
- human consumer, and
- industrial use (mining).

Two diversions at COP were established to manage the flow of Thirty Mile Creek and its tributaries in the late 1990’s. The local surface water context and existing diversions are shown on **Figure 7**.

Due to agricultural activities upstream of COP, the North Arm Diversion is substantially impacted. Geomorphology of the North Arm is altered as is evident by the gully erosion and high sediment loads. The floodplain level is generally ~2 m above channel invert, with channel aggradation resulting in regular floodplain

engagement. The Thirty Mile Creek Diversion has similar morphology and condition. The channel is heavily aggraded with excess sediment inputs from upstream erosion. The depth of the active channel is shallow, and flows access the floodplain frequently.

The Humbug Gully flows from the northwest to the southeast across the northern boundary of COP. At the point where it intersects ML 70164 (**Figure 7**), the catchment area is ~24km². Humbug Gully is by low sinuosity, with occasional floodplain areas within the COP. The upper catchments of Humbug Gully commence on the escarpment of the Carborough Range to the west. The gradient of Humbug Gully within the vicinity of COP is approximately 0.28%.

The desktop Aquatic Ecology Assessment undertaken by ESP (**Attachment F**) indicated there are several mapped lacustrine wetlands, predominantly associated with mine water storages, located in the vicinity of the Ecological Study Area (**Figure 7**). A number of palustrine wetlands are mapped upstream of the Ecological Study Area. There are no wetlands of international importance (i.e. Ramsar wetlands) in the Isaac River sub-basin (DES, 2013).

Flooding

The Coppabella Diversions Design Humbug Gully Hydrology report (Alluvium, 2024) (**Attachment H**) characterises flooding conditions and assess the impact of the ultimate diversion of Thirty Mile Creek and Humbug Gully. The modelled results show the lower reaches of Humbug Gully and Harrybrandt Creek are prone to flooding during the 2% AEP event and higher. In Humbug Gully out of bank flows occur in the 2% AEP event and above.

Flood extents in Harrybrandt Creek are typically confined to the channel in the 50% AEP event. Out-of-bank flows occur in the 2% AEP event. Peak flood depths for Harrybrandt Creek range between 4.5 – 6.5 m in the 50% and 1% AEP events respectively.

Groundwater

The geology of COP comprises stratified sequences of Permian aged Rangal Coal Measures that occur at subcrop, and underlie Regolith comprised of weathered Permian rock and unconsolidated to semi-consolidated Tertiary-aged sediment. Overlying the Regolith, Harrybrandt Creek and Bee Creek and their tributaries is Quaternary alluvium deposited by the Creeks. The main hydrogeological features include Cainozoic unconsolidated sediments and Permian Coal Measures (confined and sub-artesian).

At COP, the alluvial sediments associated with Thirty Mile Creek and Harrybrandt Creek, Tertiary sediments, and weathered regolith, generally function as one interconnected hydrogeologic unit. Where present, groundwater occurs within the alluvium at depths of around 3.5 meters below ground level (mbgl) to > 10 mbgl. Similarly, the groundwater levels (in a monitoring bore adjacent to Humbug Gully within ML 70164) is much lower than the creek bed elevation of Humbug Gully indicating a losing stream. Recharge to the unconsolidated sediments is primarily via stream flow losses or flooding, with direct infiltration of rainfall also occurring rapidly where no substantial clay barriers in the shallow sub-surface exist. Discharge is via evapotranspiration from vegetation growing along creek beds and possibly minor short duration baseflow events after significant rainfall/flooding which results in saturation of the alluvium.

In the Permian strata, groundwater movement is preferentially along the coal seams which generally have higher permeability than the interburden which comprises thick sequences of interbedded lower permeability sandstone/siltstone/claystone generally confining the individual coal seams. Hydraulic conductivity of the coal decreases with depth due to increasing overburden pressure. Vertical movement of groundwater (including recharge) is limited by the confining interburden layers, subsequently groundwater flow is primarily horizontal through the seams with recharge only occurring at subcrop where the overlying strata allows. Regionally, groundwater within the Permian Coal Measures flows in a south-easterly direction with local flow towards the active mining areas. Refer to **Figure 8** and **Figure 9** outlining the groundwater levels and conceptual flow directions at COP and in the localised area.

The salinity of alluvial groundwater in COP is brackish to saline. Based on chemistry data obtained through monitoring at COP, most of the water in the aquifers is suitable for stock water supply and irrigation only. Review of the Queensland Groundwater Database (GWDB) data indicates no groundwater users within 10 km

radius of COP. Based on the shallow groundwater identified close to the Thirty Mile Creek and previous ecological studies at adjacent South Walker Creek Mine, it is possible that the shallow groundwater where present in close vicinity to creeks and tributaries may support terrestrial groundwater dependent ecosystems (GDEs).

The discussion of groundwaters above was drawn from the SLR Groundwater Final Void Assessment Report (SLR, 2024a) produced for a QLD EP Act EA Amendment. Peabody intends to engage a third party to complete a surface water modelling and impact assessment to meet the requirements of the EPBC Act, the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC). It is anticipated the Groundwater Modelling and Impact Assessment for the Action will be available in Q1 2025.

Groundwater dependent ecosystems (GDEs)

An aquatic ecology assessment conducted by ESP (2024) (**Attachment F**) found that there are no potential subterranean GDEs mapped within or in the vicinity of the Ecological Study Area, and aquifers within the study area are considered to have a low likelihood of supporting stygofauna communities. Details regarding the stygofauna assessment is in Section 3.2.4 of the ESP Aquatic Ecology Assessment (ESP, 2024) in **Attachment F.**

Desktop mapping of potential aquatic GDEs in Queensland shows no known or derived surface-expression GDEs within the vicinity of the Ecological Study Area (BOM 2023). There are several potential aquatic GDEs located within the vicinity of the Ecological Study Area, particularly along Humbug Creek, Harrybrandt Creek, and Thirty Mile Creek. Additional potential surface-expression GDEs are also mapped as occurring at several wetlands within and adjacent to the Ecological Study Area. Alluvium sediments consist of silty clayey sand, sand, and gravel, which appeared to be generally not well developed and relatively thin, with an average thickness of 1.3 m (AGE, 2010). The alluvial aquifer in these sediments was considered to be of limited extent and typically dry and would only contain water following periods of rainfall (AGE 2010). Hence, where this aquifer exists, it would likely be dry for most of the time, and as such would not support aquatic GDEs. Potential presence of aquatic GDEs is discussed in detail in Section 3.5 of the ESP Aquatic Ecology Assessment (ESP, 2024) in **Attachment F.**

Humbug Gully and Harrybrandt Creeks have a high potential for terrestrial GDEs, and some adjacent areas of woodland are low potential GDEs. Tributaries associated with Isaac River are likely groundwater dependent due to surface flow only occurring after times of high rainfall, the depth of the water table potentially being in reach of tap root systems, and clay soils that hold water for extending periods supporting adjacent wetland areas.

Riparian communities located within the Ecological Study Area are likely to contain terrestrial GDEs (facultative and/or obligate). The RE 11.3.25 vegetation community is likely to comprise a terrestrial GDE, depending on the depth of groundwater. Other vegetation communities in the Ecological Study Area that may be GDEs include REs 11.3.4 and 11.3.9.

A detailed discussed of potential for terrestrial GDEs is outlined in Section 4.1.1.2 in the E2M Terrestrial Ecology Assessment (E2M, 2024) provided in **Attachment G**.

Figure 10 illustrates the potential GDEs in relation to the Action.

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
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.

—

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. *

Direct and indirect impacts on the Great Barrier Reef World Heritage Area (GBRWHA) are very unlikely due to the Project’s comprehensive planning, localized nature, and significant mitigation measures.

The nearest World Heritage property is the GBR which was inscribed on the United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage List in 1981, having met all four of the UNESCO natural criteria for World Heritage (GBRMPA 2021a) at the time of its listing. The GBRWHA covers

approximately 348,000 km2 and extends from the top of Cape York in north-east Australia, to just north of Bundaberg, and from the low water mark on the Queensland coast to the outer boundary of the Great Barrier Reef Marine Park (GBRMP), which is beyond the edge of the continental shelf, up to 250 km offshore (GBRMPA 2021). Nearly 99% of the GBRWHA is within the GBRMP, with the remainder under Queensland Government jurisdiction, including most islands, ports and other internal state waters (GBRMPA 2021a).

The Project Area is situated within the Isaac River catchment, a tributary of the Fitzroy River which eventually discharges into the Coral Sea near Port Alma, over 424 km southeast of the COP. The eventual discharge is directly into the GBRWHA. The location of the Project in relation to the GBRWHA is provided on **Figure 12**.

The key values of the GBR include biodiversity (habitats, terrestrial habitats that support the Great Barrier Reef, and species), geomorphological features, Aboriginal and Torres Strait Islander heritage, historical heritage, community benefits of the environment, and key environmental processes (GBRMP, 2021). Current pressures on the GBR at its key values include climate change and extreme weather, catchment run-off, coastal development, and direct uses.

The Action is unlikely to directly or indirectly impact the GBRWHA based on the results of hydraulic modelling undertaken by Alluvium (2024) (**Attachment H**). The hydraulic modelling indicated that the addition of the HG Diversion into the Harrybrandt Creek system is unlikely to negatively affect the current stream parameters in Harrybrandt Creek itself and additional flows to Harrybrandt Creek will be similar to existing conditions in Humbug Gully (representative of the creek systems in the area).

The catchment area of Harrybrandt Creek and Humbug Gully modelled as part of the HG Diversion design is 261 km2 (refer to Appendix A of **Attachment A**). This represents 0.18% of the Fitzroy River 142,665 km2 catchment area.

Downstream impacts are possible during large flood events when there is a potential for greater erosional adjustments to occur than would otherwise occur if riparian vegetation were more established. The altered flow paths of the creeks will likely introduce sediments into new areas. Model results suggest that Harrybrandt Creek will transport these sediments downstream, particularly after receiving additional sediment from Thirty Mile Creek. Due to the localized nature of the action and its outlined impacts, coupled with the significant distance from the site to the GBRWHA outflow, direct impacts on the GBRWHA from the Project are unlikely.

Localised direct and indirect impacts may arise from alterations to surface flow volumes and water quality in the Project area and to the east. However, any such localised changes in flow volume will have negligible impacts downstream at the GBRWHA, given the minor contribution of Harrybrandt Creek and Humbug Gully catchment (261 km2) relative to the extensive Fitzroy River catchment (142,665 km2). Additionally, any potential alterations to water quality – such as changes in dissolved inorganic nitrogen levels or sedimentation – will primarily be localized and become negligible at the GBRWHA due to extensive dilution and mixing over the 424 km to the outflow point.

The likelihood of direct or indirect impacts is further diminished by comprehensive erosion control, sediment mitigation, and management plans already implemented at COP and those planned for the HG Diversion. These measures are detailed below and are designed to ensure that any potential environmental changes are effectively managed and contained within the local area.

HG Mining Area Management and Mitigation Measures

Existing sedimentation management measures at COP include erosion control structures that divert stormwater into natural or diverted watercourses, physical containment in sediment basins controlled or managed by de-siltation activities, and monitoring of receiving waters (upstream and downstream).

The COP operates under several relevant monitoring and management plans. These plans are outlined in **Attachment C** and include the following most relevant to the management of erosion and sediment control:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)

- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)

The Water Management Plan (Peabody, 2023) provided in **Attachment C1** provides an overview of contaminant source assessment, the water management system, water balance model, management measures and surface water monitoring program at COP. This document also includes Trigger Action Response Plans (TARPs) for multiple scenarios at COP, two of which are most relevant and are attached (i.e. TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C3** and TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C4**).

The existing COP water management and mitigation measures will be reviewed and updated to incorporate the impacts of the Action. The COP ESCP (**Attachment C2**) provides a guide for managing:

- Permanent drainage control, such as designing the diversion according to DERM guidelines and specifications and utilising vegetation as the primary method of stabilising channel banks, terraces and floodplain drainage paths.
- Drain velocity control, such as utilising logs, rocks, and integrating vegetation.
- Erosion control, utilising methods such as soil binders, revegetation, and cellular confinement systems
- Monitoring and emergency reporting.

Water quality sampling is routinely undertaken at ten locations upstream and downstream of the Action as part of the COP REMP (design document is provided under **Attachment C5**). The monitoring has been undertaken in accordance with the COP EA and includes water quality, sediment, and macroinvertebrate sampling. The sampling locations are shown on Figure 1 of **Attachment E** in the Receiving Environment Monitoring Plan Report 2022 and an overview of the latest water quality monitoring results are provided in **Section 3.4.1** of this application.

HG Diversion Management and Mitigation Measures

- The designed channel will include a 1 m excavated hyporheic zone which will enable sediments to deposit, to create a region of sediment and porous space below the stream bed, similar to the existing creeks in the area. This zone is important for hydrologic and ecologic function of the proposed diversion and enable continuity of those processes up and downstream.
- An optimized alignment was adopted to reduce construction cut material by utilizing existing gullies and following existing contours.
- Implementation of a revegetation program to provide for a healthy functioning riparian corridor with environmental values at least equivalent to adjoining reaches.
- The diversion has been designed and will be constructed to operate in “dynamic equilibrium” with adjoining reaches such that it is self-sustaining and does not require any ongoing management intervention in the longer term. However, the post construction measures to be adopted are outlined below.
- The COP ESCP (**Attachment C2**) will form the basis of a Project specific ESCP that will be developed prior to commencement of works.
- Peabody will develop a diversion monitoring program to assess the performance and condition of the diversion. The recommended monitoring program is based upon the “*Monitoring and Evaluation Program for Bowen Basin Diversions*” undertaken by ACARP (2001).
- Regular maintenance will include maintaining minor drainage channels and batter chutes (if any are required), controlling weed and pest animals, and controlling stock access to the diversion.

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. *

Direct and indirect impacts on the Great Barrier Reef National Heritage place (GBRNHP) are very unlikely due to the Project's comprehensive planning, localized nature, and significant mitigation measures.

The nearest National Heritage Place is the Great Barrier Reef National Heritage place (GBRNHP), which was included in the National Heritage List in 2007 as it met five of the nine possible National Heritage criterion as below:

- Criterion A: Events Processes, as this place meets World Heritage criteria vii, viii, ix and x
- Criterion B: Rarity, as this place meets World Heritage criteria x
- Criterion C: Research, as this place meets World Heritage criteria viii, ix and x
- Criterion D: Principal characteristics of a class of places, as this place meets World Heritage criteria viii, ix and x, and
- Criterion E: Aesthetic characteristics, as this place meets World Heritage criteria vii.

The Project Area is situated within the Isaac River catchment, a tributary of the Fitzroy River which eventually discharges into the Coral Sea near Port Alma, over 424 km southeast of the COP. The eventual discharge is directly into the GBRNHP and the GBRWHA. The location of the Project in relation to the GBRNHP is provided on **Figure 12**.

The Action is unlikely to directly or indirectly impact the GBRNHP based on the results of hydraulic modelling undertaken by Alluvium (2024) (**Attachment H**). The hydraulic modelling indicated that the addition of the HG Diversion into the Harrybrandt Creek system is unlikely to negatively affect the current stream parameters in Harrybrandt Creek itself and additional flows to Harrybrandt Creek will be similar to existing conditions in Humbug Gully (representative of the creek systems in the area).

The catchment area of Harrybrandt Creek and Humbug Gully modelled as part of the HG Diversion design is 261 km2 (refer to Appendix A of **Attachment A**). This represents 0.18% of the Fitzroy River 142,665 km2 catchment area.

Downstream impacts are possible during large flood events when there is a potential for greater erosional adjustments to occur than would otherwise occur if riparian vegetation were more established. The altered flow paths of the creeks will likely introduce sediments into new areas. Model results suggest that Harrybrandt Creek will transport these sediments downstream, particularly after receiving additional sediment from Thirty Mile Creek. Due to the localized nature of the action and its outlined impacts, coupled with the significant distance from the site to the GBRNHP outflow, direct impacts on the GBRNHP from the Project are unlikely.

Localised direct and indirect impacts may arise from alterations to surface flow volumes and water quality in the Project area and to the east. However, any such localised changes in flow volume will have negligible impacts downstream at the GBRNHP, given the minor contribution of Harrybrandt Creek and Humbug Gully catchment (261 km2) relative to the extensive Fitzroy River catchment (142,665 km2). Additionally, any potential alterations to water quality – such as changes in dissolved inorganic nitrogen levels or sedimentation – will primarily be localized and become negligible at the GBRNHP due to extensive dilution and mixing over the 424 km to the outflow point.

The likelihood of direct or indirect impacts is further diminished by comprehensive erosion control, sediment mitigation, and management plans already implemented at COP and those planned for the HG Diversion. These measures are detailed below and are designed to ensure that any potential environmental changes are effectively managed and contained within the local area.

HG Mining Area Management and Mitigation Measures

Existing sedimentation management measures at COP include erosion control structures that divert stormwater into natural or diverted watercourses, physical containment in sediment basins controlled or managed by de-siltation activities, and monitoring of receiving waters (upstream and downstream).

The COP operates under several relevant monitoring and management plans. These plans are outlined in **Attachment C** and include the following most relevant to the management of erosion and sediment control:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)
- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)

The Water Management Plan (Peabody, 2023) provided in **Attachment C1** provides an overview of contaminant source assessment, the water management system, water balance model, management measures and surface water monitoring program at COP. This document also includes Trigger Action Response Plans (TARPs) for multiple scenarios at COP, two of which are most relevant and are attached (i.e. TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C3** and TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C4**).

The existing COP water management and mitigation measures will be reviewed and updated to incorporate the impacts of the Action. The COP ESCP (**Attachment C2**) provides a guide for managing:

- Permanent drainage control, such as designing the diversion according to DERM guidelines and specifications and utilising vegetation as the primary method of stabilising channel banks, terraces and floodplain drainage paths.
- Drain velocity control, such as utilising logs, rocks, and integrating vegetation.
- Erosion control, utilising methods such as soil binders, revegetation, and cellular confinement systems
- Monitoring and emergency reporting.

Water quality sampling is routinely undertaken at ten locations upstream and downstream of the Action as part of the COP REMP (design document is provided under **Attachment C5**). The monitoring has been undertaken in accordance with the COP EA and includes water quality, sediment, and macroinvertebrate sampling. The sampling locations are shown on Figure 1 of **Attachment E** in the Receiving Environment Monitoring Plan Report 2022 and an overview of the latest water quality monitoring results are provided in **Section 3.4.1** of this application.

HG Diversion Management and Mitigation Measures

- The designed channel will include a 1 m excavated hyporheic zone which will enable sediments to deposit, to create a region of sediment and porous space below the stream bed, similar to the existing creeks in the area. This zone is important for hydrologic and ecologic function of the proposed diversion and enable continuity of those processes up and downstream.
- An optimized alignment was adopted to reduce construction cut material by utilizing existing gullies and following existing contours.
- Implementation of a revegetation program to provide for a healthy functioning riparian corridor with environmental values at least equivalent to adjoining reaches.
- The diversion has been designed and will be constructed to operate in “dynamic equilibrium” with adjoining reaches such that it is self-sustaining and does not require any ongoing management intervention in the longer term. However, the post construction measures to be adopted are outlined below.
- The COP ESCP (**Attachment C2**) will form the basis of a Project specific ESCP that will be developed prior to commencement of works.
- Peabody will develop a diversion monitoring program to assess the performance and condition of the diversion. The recommended monitoring program is based upon the “*Monitoring and Evaluation Program*

for Bowen Basin Diversions" undertaken by ACARP (2001).

- Regular maintenance will include maintaining minor drainage channels and batter chutes (if any are required), controlling weed and pest animals, and controlling stock access to the diversion.

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.

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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. *

The closest Ramsar Wetlands are the Shoalwater and Corio Bays Area, which comprises 330 km of coastline (including islands) along the central coast of Queensland. The southern boundary, at Corio Bay, and northern boundary, at Broome Head, are approximately 50 km and 125 km north of Rockhampton. The Shoalwater and Corio Bays Area Ramsar Site supports an abundance of waterbirds and is listed under the East Asian-Australasian Flyway Site Network with Shoalwater Bay and is also listed as an Important Bird Area by BirdLife International.

The results of hydraulic modelling undertaken by Alluvium (2024) (**Attachment H**) indicates that the addition of the HG Diversion into the Harrybrandt Creek system is unlikely to negatively affect the current stream parameters in Harrybrandt Creek itself. Additional flows to Harrybrandt Creek will be similar to existing conditions in Humbug Gully, which is representative of the creek systems in the area. Localised direct and indirect impacts may arise from alterations to surface flow volumes and water quality in the Project Area and to the east. However, any such localised changes in flow volume will have negligible impacts downstream at the outflow point, given the minor contribution of Harrybrandt Creek and Humbug Gully catchment (261 km2) relative to the extensive Fitzroy River catchment (142,665 km2).

Due to the localized nature of the Action and its outlined impacts, coupled with the significant distance from the outflow point (mouth of the Fitzroy River) relative to the location of Shoalwater and Corio Bays Area (**Figure 12**), direct impacts from the Project are unlikely.

The likelihood of direct or indirect impacts is further diminished by comprehensive erosion control, sediment mitigation, and management plans already implemented at COP and those planned for the HG Diversion. These measures are detailed below and are designed to ensure that any potential environmental changes are effectively managed and contained within the local area.

HG Mining Area Management and Mitigation Measures

Existing sedimentation management measures at COP include erosion control structures that divert stormwater into natural or diverted watercourses, physical containment in sediment basins controlled or managed by de-siltation activities, and monitoring of receiving waters (upstream and downstream).

The COP operates under several relevant monitoring and management plans. These plans are outlined in **Attachment C** and include the following most relevant to the management of erosion and sediment control:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)

- Erosion and Sediment Control Plan (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)
- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)

The Water Management Plan (Peabody, 2023) provided in **Attachment C1** provides an overview of contaminant source assessment, the water management system, water balance model, management measures and surface water monitoring program at COP. This document also includes Trigger Action Response Plans (TARPs) for multiple scenarios at COP, two of which are most relevant and are attached (i.e. TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C3** and TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C4**).

The existing COP water management and mitigation measures will be reviewed and updated to incorporate the impacts of the Action. The COP ESCP (**Attachment C2**) provides a guide for managing:

- Permanent drainage control, such as designing the diversion according to DERM guidelines and specifications and utilising vegetation as the primary method of stabilising channel banks, terraces and floodplain drainage paths.
- Drain velocity control, such as utilising logs, rocks, and integrating vegetation.
- Erosion control, utilising methods such as soil binders, revegetation, and cellular confinement systems
- Monitoring and emergency reporting.

Water quality sampling is routinely undertaken at ten locations upstream and downstream of the Action as part of the COP REMP (design document is provided under **Attachment C5**). The monitoring has been undertaken in accordance with the COP EA and includes water quality, sediment, and macroinvertebrate sampling. The sampling locations are shown on Figure 1 of **Attachment E** in the Receiving Environment Monitoring Plan Report 2022 and an overview of the latest water quality monitoring results are provided in **Section 3.4.1** of this application.

HG Diversion Management and Mitigation Measures

- The designed channel will include a 1 m excavated hyporheic zone which will enable sediments to deposit, to create a region of sediment and porous space below the stream bed, similar to the existing creeks in the area. This zone is important for hydrologic and ecologic function of the proposed diversion and enable continuity of those processes up and downstream.
- An optimized alignment was adopted to reduce construction cut material by utilizing existing gullies and following existing contours.
- Implementation of a revegetation program to provide for a healthy functioning riparian corridor with environmental values at least equivalent to adjoining reaches.
- The diversion has been designed and will be constructed to operate in “dynamic equilibrium” with adjoining reaches such that it is self-sustaining and does not require any ongoing management intervention in the longer term. However, the post construction measures to be adopted are outlined below.
- The COP ESCP (**Attachment C2**) will form the basis of a Project specific ESCP that will be developed prior to commencement of works.
- Peabody will develop a diversion monitoring program to assess the performance and condition of the diversion. The recommended monitoring program is based upon the “*Monitoring and Evaluation Program for Bowen Basin Diversions*” undertaken by ACARP (2001).
- Regular maintenance will include maintaining minor drainage channels and batter chutes (if any are required), controlling weed and pest animals, and controlling stock access to the diversion.

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
No	No	Calidris acuminata
No	No	Calidris ferruginea
No	No	Dasyurus hallucatus
Yes	Yes	Denisonia maculata
No	No	Dichanthium queenslandicum
No	No	Dichanthium setosum
No	No	Egernia rugosa
No	No	Elseya albagula
No	No	Erythrotriorchis radiatus
No	No	Eucalyptus raveretiana
No	No	Falco hypoleucos
No	No	Gallinago hardwickii
Yes	Yes	Geophaps scripta scripta
Yes	No	Hirundapus caudacutus
No	No	Macroderma gigas
No	No	Neochmia ruficauda ruficauda
No	No	Nyctophilus corbeni
Yes	Yes	Petauroides volans
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)
No	No	Poephila cincta cincta
No	No	Polianthion minutiflorum
No	No	Rheodytes leukops
No	No	Rostratula australis
No	No	Samadera bidwillii
No	No	Stagonopleura guttata

Ecological communities

Direct impact	Indirect impact	Ecological community
Yes	Yes	Brigalow (Acacia harpophylla dominant and co-dominant)
No	No	Natural Grasslands of the Queensland Central Highlands and northern Fitzroy Basin
No	No	Poplar Box Grassy Woodland on Alluvial Plains

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. *

The Action is likely to impact the Brigalow TEC and multiple threatened species listed under the EPBC Act. Impacts will result from vegetation clearing and habitat removal, habitat disturbance and degradation, fragmentation, light, noise and dust emissions, injury and/or mortality of fauna, and increased risk of fire, edge effects, changes in hydrology (flow, drawdown and quality) and potential spread of pest flora and fauna species.

The result of the impact assessment are detailed in detail in Section 5.0 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Direct Impacts

Vegetation clearing and habitat removal is likely to directly impact MNES flora and fauna species by eliminating or reducing the extent/availability of nesting, denning and roosting/shelter habitat, fragmenting habitat, removing or reducing the availability of food and foraging habitat; and increasing competition through reduced availability of resources.

The direct clearing impacts resulting from the action are as follows:

- Brigalow TEC – clearing of 10.69 ha verified TEC in the disturbance area. Refer to **Figure 3**.
- Greater glider – clearing of 20.10 ha of preferred habitat and 199.09 ha of suitable habitat. Refer to **Figure 4**.
- Koala – clearing of 20.10 ha of preferred habitat and 199.09 ha of suitable habitat. Refer to **Figure 5.**
- Ornamental snake – clearing of 29.48 ha of preferred habitat. Refer to **Figure 6**.
- Squatter pigeon – clearing of 42.63 ha of preferred habitat and 175.51 ha of suitable habitat. Refer to Figure 7D of the E2M Terrestrial Ecology Assessment (2024) provided in **Attachment G**.
- White-throated needletail – clearing of 238.58 ha of marginal habitat. Refer to Figure 7E of the E2M Terrestrial Ecology Assessment (2024) provided in **Attachment G**
- Fork-tailed swift – clearing of 238.58 ha of marginal habitat. Refer to Figure 8 of the E2M Terrestrial Ecology Assessment (2024) provided in **Attachment G**.

Refer to Section 5 and Table 7 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Clearing likely to fragment habitat and result in edge effects in habitat adjacent the disturbance. Remnant and regrowth vegetation within and adjacent the disturbance footprint is likely important for fauna movement. Riparian vegetation associated with Humbug Gully appears particularly important in this regard, serving as a

movement corridor for a number of fauna species, including koala and greater glider. Vegetation clearing is likely to fragment habitat and result in the loss of connectivity values associated with this riparian corridor.

Introduced flora species disrupt ecosystems by outcompeting and replacing native species, resulting in altered ecosystem diversity and function. Proliferation and spread of environmental weeds and pests may occur with vegetation clearing, soil disturbance and increased movement of heavy machinery and vehicles. Weed seeds can be transported in contaminated landfill, seed and material on machinery, vehicles or personnel. Construction activities have the potential to spread or introduce weeds throughout adjacent environs, resulting in the reduction in vegetation/habitat quality and native species assemblages.

The Action could also result in an increase in the presence and abundance of feral animals through improper waste disposal and increased permanency of water sources (e.g. dams and troughs). This could result in adverse impacts to native fauna occurring within the Project Area such as increased competition of resources, predation, spreading weeds, grazing and trampling of native vegetation, introduction and spread of pathogens, poisoning (e.g., cane toads), soil disturbance (e.g., pig diggings), and reduced water.

Construction and operational activities can disrupt local fauna roosting, breeding and foraging activities as a result of increased exposure to artificial lighting, noise/vibration and dust. Artificial lighting used during construction and operational phases of the Action has the potential to impact fauna (including MNES species) occupying habitat adjacent work areas.

Noise levels in the north of the Project Area will likely increase during construction and operational phases of the Action, due to the shifting of mining operations northwards from the existing mining area. The resulting increase in noise levels may impact fauna occupying habitat adjacent work areas by disrupting communication between individuals, startling or frightening animals, or forcing animals to avoid or abandon areas of nearby habitat.

Construction and operational activities are also likely to generate dust emissions. Excessive deposition of dust on leaves of plants can suppress growth and photosynthesis and result in reduced habitat quality for fauna. High levels of airborne dust particles can also irritate the respiratory systems of fauna and potentially result in ingestion of dust-coated seeds and other foods. Excessive deposition of dust on open water bodies may also degrade water quality and overall habitat quality for fauna, adjacent disturbance areas.

Erosion and contamination of soils and water may occur as a result of construction and operational activities, such as vegetation clearing, unexpected releases and operation of heavy machinery. Erosion can remove the most productive part of the soil profile, the topsoil, resulting in a greatly reduced opportunity for natural regeneration of vegetation communities (unless stockpiled).

Inappropriate disposal of liquid and solid wastes, including spills and leaks from transfers (fuel, chemicals) and inadequate storage may also result in point-source contamination of surrounding land, including habitats of threatened and migratory species.

Increased risk of fire incursion is more likely to be associated with the construction phase of the Action. Construction activities have the potential to increase the risk of fire, causing injury or loss of human life, loss of flora and vegetation, fauna and habitat and impacting surface water quality.

Fauna injury and/or mortality may also result from clearing, earth works and site traffic. Open excavation areas also pose a risk to fauna with animals falling into open pits or trenches potentially succumbing to injury and/or becoming trapped.

Direct impacts are discussed in detailed in detail in Section 5.1 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Indirect Impacts

The Action has the potential to alter existing hydrological conditions within the Project Area and surrounds, including surface water flows and groundwater levels. The Action proposes a diversion of surface flows on Humbug Gully, which may have a downstream influence on surface flow volumes to the east, where fringing riparian habitats are identified as potential Terrestrial GDEs and supporting habitat for MNES threatened fauna. Changes in surface water quality may also impact terrestrial ecosystems downstream of disturbance

associated with the Action due to increased erosion and sedimentation of receiving surface waters and mobilisation of other contaminants in runoff from construction and disturbance areas. These changes in water quality have the potential to impact vegetation and habitat fringing the Humbug Gully in the area of the HG Diversion as well as communities located downstream of the HG Diversion, including Humbug Gully and Harrybrandt Creek.

Groundwater drawdown and quality changes may result from the Action. Groundwater drawdown and quality changes may have an adverse impact on terrestrial GDEs and associated habitat for MNES fauna within the Ecological Study Area.

Vegetation clearing may also to result in edge effects to vegetation communities and habitat adjacent the disturbance footprint.

Indirect impacts are discussed in detailed in detail in Section 5.2 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

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. *

Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC – Endangered under the EPBC Act

The Action will result in the direct removal of 10.69 ha of Brigalow TEC. The Approved Conservation Advice for the Brigalow ecological community (DoE, 2013a) outlines that areas critical to the survival of the community include all patches that meet the key diagnostic characteristics and condition thresholds for the TEC. The Brigalow patches within the Project Area meet the key diagnostic characteristics and condition thresholds of the TEC, such that they constitute habitat critical to survival of the TEC. Accordingly, the Action is expected to lead to a significant impact on the Brigalow TEC because of:

- Reduction in the extent of the TEC
- Adversely affecting habitat critical to the survival of the TEC; and
- Interfering with the recovery of the TEC.

It is also anticipated that modification of abiotic factors (i.e. water) and/or change in species composition of downstream areas of the TEC may occur as a result of hydrological changes.

The significant impact assessment for Brigalow TEC is further discussed in Section 7.1 and Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Koala *(Phascolarctos cinereus)* – Endangered under the EPBC Act

The Action will result in the direct loss of 219.19 ha of koala habitat, comprising 20.10 ha of preferred and 199.09 ha of suitable habitat for the species. Based on the habitat characteristics together with the extent and condition, it is likely that habitat within the disturbance area meets essential life cycle requirements via supporting foraging, breeding, social behaviour and/or dispersal such that it meets the requirements to constitute habitat critical to survival. The Action is expected to lead to a significant impact on koala through:

- A long-term decrease in the population size
- Adverse effect on habitat critical to the survival of the species
- Disruption to the breeding cycle of the population
- Modification of downstream habitats, and
- Interference with the recovery of the species.

The significant impact assessment for koala is further discussed in Section 7.2 and Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Greater glider *(Petauroides volans / Petauroides armillatus)* – Endangered under the EPBC Act

The Action will result in the direct loss of 219.19 ha of greater glider habitat, comprising 20.10 ha of preferred and 199.09 ha of suitable habitat for the species. Habitat within the disturbance area meets definition of habitat critical to the survival of greater glider (DoE, 2016), being 'large contiguous areas of eucalypt forest, which contain mature hollow-bearing trees and a diverse range of the species' preferred food species in a particular region'. The Action is expected to lead to a significant impact on greater glider as a result of:

- leading to a long-term decrease in the population size
- adversely affecting habitat critical to the survival of the species
- disrupting the breeding cycle of the population
- modification of downstream habitats, and
- interfering with the recovery of the species.

The significant impact assessment for greater glider is further discussed in Section 7.2 and Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Ornamental snake *(Denisonia maculata)* – Endangered under the EPBC Act

The Action will result in the direct clearing of 29.48 ha of preferred habitat for ornamental snake, including areas known to be occupied by the species. Under the Draft referral guidelines for the nationally listed Brigalow Belt reptiles (Department of Sustainability, Environment, Water, Population and Communities (SEWPC), 2011), important habitat for the ornamental snake is a surrogate for an important population for the species. Important habitat for ornamental snake includes areas with gilgai depressions and mounds, or habitat that functions as connectivity between such areas (SEWPC, 2011).

Given that the disturbance footprint provides connectivity between gilgai habitats associated with RE 11.5.16, the habitat and population impacted by the Action are deemed to be important. The Action is expected to lead to a significant impact on ornamental snake by:

- Leading to a long-term decrease in the population size
- Fragmenting a population
- Adversely affecting habitat critical to the survival of the species
- Disrupting the breeding cycle of the population
- Modification of downstream habitats, and
- Interfering with the recovery of the species.

The significant impact assessment for ornamental snake is further discussed in Section 7.3 and Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

In addition to the species outlined here, other species that will not be significantly impacted by the Action is outlined under Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

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 Action is likely to result in a significant impact to the following:

- Brigalow (*Acacia harpophylla* dominant and co-dominant)
- Koala (*Phascolarctos cinereus*)
- Greater Glider (southern and central) (*Petauroides volans / Petauroides armillatus*), and
- Ornamental Snake (*Denisonia maculata*).

The significant impact assessments for these species are outlined in Section 7.0 and Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**). Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**) also includes significant impact assessments for the squatter

pigeon,white-throated needletail, and fork-tailed swift that details why significant impact to these species is unlikely.

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. *

These environmental management and monitoring plans in place at COP are outlined in **Attachment C** and include the following:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (ESCP) (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)
- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)
- Air Quality Management Plan (ERM, April 2023) (**Attachment C6**)
- Rehabilitation Management Plan (EcoLogical, June 2016) (**Attachment C7**), and
- Cultural Heritage Management Plan (May, 2010) (**Attachment K**).

In addition to any required updates to these plans, prior to commencement of works for the Action, the management and mitigation measures – including additional management plans – will be developed and implemented.

Vegetation clearing and habitat removal

A range of measures will be implemented over the construction and operational phases of the Action to mitigate and minimise impacts. These measures include:

- Vegetation clearing extents will be kept to the minimum area necessary for construction. Areas that must not be cleared or damaged would also be clearly identified on construction plans. In this regard the proposed construction works (and disturbance footprint) will be set out and demarcated with pegs at a maximum of 50 m intervals along the limit of clearing.
- Placement of temporary infrastructure is to be located outside of remnant vegetation, with areas previously cleared/degraded (non-remnant) to be prioritised.
- Boundaries of areas to be cleared, and those not to be cleared are to be clearly defined during clearing activities and clearly communicated to all necessary construction personnel. Where necessary, signage, flagging and/or barricade fencing may be used to demarcate areas not to be cleared.
- Threatened Species Management Plans will be developed prior to the commencement of construction to comply with Commonwealth and Queensland legislation and promote conservation outcomes for:
- Koala (*Phascolarctos cinereus*)
- Greater glider (central and southern) (*Petauroides volans*), and
- Ornamental snake (*Denisonia maculata*).

The Threatened Species Management Plan should include species-specific mitigation measures and controls to minimise and mitigate long term impacts on these species.

- Pre-clearance fauna surveys are to be undertaken by a suitably experienced and qualified ecologist to identify fauna at direct risk from clearing activities.
- A suitably experienced and qualified fauna spotter/catcher will be present during the clearing of any structures that may serve as habitat or refugia for animals.
- Prior to removal, all hollow-bearing trees approved for removal are to be thoroughly checked for fauna presence prior to felling. If fauna presence is confirmed, it is recommended that trees be left overnight to allow for self-dispersal.
- Hollow-bearing trees providing shelter for native fauna should be felled slowly (in sections), so as to minimise the risk of injury to fauna.

- Fauna captured during clearing will be treated for injuries and transferred to suitable habitat elsewhere within or adjacent the Project Area.
- In the event a koala is identified within areas to be cleared, the individual is to be left to vacate the area on its own accord.
- Vegetation clearing should be carried out sequentially over the life of the Action to allow fauna species the opportunity to disperse away from clearing areas.
- Directional clearing towards retained vegetation would be undertaken where practical to enable the movement of fauna into retained vegetation.
- During construction works, work areas and excavations (trenches) are to be checked for fauna that may have become trapped.
- Fauna exclusion fencing will be erected around open trenches and pits >1 m depth to minimise the risk of injury to fauna.
- If trenches remain open after daily site works have been completed, fauna ramps would be put in place.

Habitat disturbance and degradation

Potential impacts associated with fragmentation and edge effects will be largely managed in association with measures detailed within the following sections. In summary, potential impacts to adjacent vegetation and habitat will be managed through the management plans provided in **Attachment C2**, **Attachment C6** and **Attachment C7**, updates to these plans and a Weed and Pest Management Plan being developed by the CMJV.

A Weed and Pest Management Plan for the Project will be developed to help minimise/mitigate impacts of pest species on native flora and fauna within the Project Area. This plan will include measures to manage/control weed and pest animal species within the Project Area and surrounds during construction and operational phases of the Action, as detailed below.

- Weeds or soil removed as a result of construction activities are to be appropriately disposed of or stored separately to minimise potential spread and proliferation of weed species.
- Prior to vegetation clearing activities, a pre-clearance survey will be undertaken to identify and map infestations of biosecurity matter to minimise the spread during clearing works and operational phase.
- Waste management, including suitable disposal of waste food, to minimise occurrences of pest fauna.
- All vehicles, equipment and materials (e.g. landfill, soil etc) brought to site are to be certified free of biosecurity matter and carry weed hygiene certification.
- Rehabilitation monitoring to identify environmental weeds within rehabilitation areas
- Biosecurity monitoring to identify and assess the risk of weed and pest occurrences within the Action and adjacent mine areas.
- Control measures for target biosecurity species and other weed and pest species identified within the Action and adjacent mine areas.

Increased light, noise and dust levels

To mitigate the potential impacts of light, noise and dust during construction and operation of the Action, the following management measures will be applied:

- Where artificial lighting is required, directional lighting should be implemented
- Implementation of a Dust Management Plan, and
- Regular maintenance of machinery and mobile plants should be undertaken to minimise unnecessary noise.

Fauna injury and/or mortality

To mitigate potential impacts to fauna, including MNES species, the following management measures will be implemented during construction and operational phases of the Action:

- Vehicles are to remain on designated access tracks and adhere to site rules relating to speed limits
- Speed limits are to be clearly signposted to minimise potential fauna strike
- Removal of roadkill should be undertaken to minimise the risk of attracting other fauna to the road corridor

- Contingencies and procedures for the treatment of injured fauna
- Where installation of wire fencing is required to exclude personnel or vehicular traffic, consideration should be given to movement of fauna around and/or through such fencing, and
- Barbed wire should not be used on the top strand of wire fences unless necessary for security.

The above measures will also be included in Threatened Species Management Plans.

Increased risk of fire

Potential impacts from bushfire risk for the Action will be mitigated through the following measures:

- Managing vegetation within the MLs to maintain safe fuel loads and firebreaks
- Any chemicals used in the Project Area should be handled and disposed of in accordance with the relevant Material Safety Data Sheets
- Establishing and maintaining access tracks to be used by Queensland Fire and Rescue Service for emergency purposes; and
- Implementing an Emergency Response Procedure for fires prepared in consultation with emergency services.

Changes in hydrology

Further assessment and modelling of hydrologic conditions within and adjacent to the Project Area are required to characterise and quantify indirect Action impacts to groundwater and surface water hydrology on terrestrial GDEs and associated MNES fauna habitat.

Effective management/mitigation of Project impacts on terrestrial GDEs and associated MNES will require development of a Groundwater Dependent Ecosystem Monitoring and Management Plan, including annual monitoring of groundwater quality and potential drawdown to identify trends and changes over time in terrestrial GDEs, vegetation and habitat, within the predicted drawdown extent and downstream of the Action.

Monitoring

Monitoring will be undertaken during the construction and operation phases of the Action (and, where necessary, after completion of the Action) in order to assess Action impacts on MNES and gauge the efficacy of proposed impacts mitigation measures. Monitoring will focus on the quality and condition of vegetation and MNES fauna habitat adjacent to mining activities as well as vegetation communities located downstream of the Action. Monitoring methods, frequency of monitoring, and criteria for assessing the success (or otherwise) of impact mitigation measures will be detailed in the following management plans proposed for the Action:

- Weed and Pest Management Plan
- Threatened Species Management Plan for threatened fauna, and
- Groundwater Dependent Ecosystem Monitoring and Management Plan.

In addition, the management plans in place at COP are provided under **Attachment C** and will be updated as required to mitigate impacts from the Action.

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

Peabody are in the early stages of investigating potential offset properties in their existing property portfolio to determine an appropriate area(s) for acquitting impacts associated with the Action. In due course, Peabody will engage a third party to develop an Offset Strategy and Offset Area Management Plan(s) to a standard acceptable by DCCEEW. The location and extent of offsets will be established after detailed Project design and the precise extent of impacts are understood. Environmental offsets will be managed under appropriate management plans and subject to monitoring and performance criteria such that offsets are compliant with the Commonwealth Environmental Offsets Policy offset principles. The Peabody properties in the vicinity of the COP that are being investigated for potential offset suitability are outlined on **Figure 11**.

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
No	No	Actitis hypoleucos
Yes	No	Apus pacificus
No	No	Calidris acuminata
No	No	Calidris ferruginea
No	No	Calidris melanotos
No	No	Cuculus optatus
No	No	Gallinago hardwickii
No	No	Motacilla flava
No	No	Myiagra cyanoleuca

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. *

The fork-tailed swift (*Apus pacificus*) is known to occur in the Project Area. In the 2023 field survey, a flock of 20-40 individuals were observed utilising the airspace above the Ecological Study Area. The species is likely to be completely aerial in Australia with only one record of the species roosting in Australia in emergent branches above foliage (Newell, 1930). Details are outlined in Section 4.4.4 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

Marginal habitat for the species is mapped within the Project Area, as outlined on Figure 8 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

These areas within the Project Area provide potential foraging habitat. Based on desktop and field investigations to date, the Project Area contains 1280.28 ha of marginal habitat for the species, including 253.10 ha of marginal habitat within the disturbance footprint.

The likelihood of direct or indirect impacts to this species is very low.

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. *

A significant impact on the fork-tailed swift has been determined unlikely as:

1. Fork-tailed swift is almost exclusively aerial and will only occupy airspace above the Project Area (DCCEEW, 2023a). The airspace above the Project Area is characterized as providing marginal general foraging habitat for the species. The clearing of 253.10 ha of marginal foraging habitat is considered largely inconsequential to the species and is therefore unlikely to modify, destroy, remove isolate or decrease the availability or quality of habitat for the fork-tailed swift to the extent that the species is likely to decline.
2. No invasive species are currently identified as a threat to the species. Furthermore, given the aerial nature of fork-tailed swift, the Action is unlikely to result in the introduction or spread of invasive species that may be harmful to the species.
3. Fork-tailed swift does not breed in Australia (DCCEEW, 2023a), as such the Action is unlikely to disrupt the breeding cycle of the species.

The significant impact assessment for the fork-tailed swift is detailed under Appendix C of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**).

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 proposed action with relation to the fork-tailed swift has been determined unlikely to be a controlled action because:

1. Fork-tailed swift is almost exclusively aerial and will only occupy airspace above the Project Area (DCCEEW, 2023a). The airspace above the Project Area is characterized as providing marginal general foraging habitat for the species. The clearing of 253.10 ha of marginal foraging habitat is considered largely inconsequential to the species and is therefore unlikely to modify, destroy, remove isolate or decrease the availability or quality of habitat for the fork-tailed swift to the extent that the species is likely to decline.
2. No invasive species are currently identified as a threat to the species. Furthermore, given the aerial nature of fork-tailed swift, the Action is unlikely to result in the introduction or spread of invasive species that may be harmful to the species.
3. Fork-tailed swift does not breed in Australia (DCCEEW, 2023a), as such the Action is unlikely to disrupt the breeding cycle of the 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. *

These environmental management and monitoring plans in place at COP are outlined in **Attachment C** and include the following:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (ESCP) (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)
- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)
- Cultural Heritage Management Plan (May, 2010) (**Attachment C6**)
- Air Quality Management Plan (ERM, April 2023) (**Attachment C7**), and
- Rehabilitation Management Plan (EcoLogical, June 2016) (**Attachment C8**).

In addition to any required updates to these plans, prior to commencement of works for the Action, the management and mitigation measures – including additional management plans – will be developed and implemented.

Vegetation clearing and habitat removal

A range of measures will be implemented over the construction and operational phases of the Action to mitigate and minimise impacts. These measures include:

- Vegetation clearing extents will be kept to the minimum area necessary for construction. Areas that must not be cleared or damaged would also be clearly identified on construction plans. In this regard the proposed construction works (and disturbance footprint) will be set out and demarcated with pegs at a maximum of 50 m intervals along the limit of clearing.
- Placement of temporary infrastructure is to be located outside of remnant vegetation, with areas previously cleared/degraded (non-remnant) to be prioritised.
- Boundaries of areas to be cleared, and those not to be cleared are to be clearly defined during clearing activities and clearly communicated to all necessary construction personnel. Where necessary, signage, flagging and/or barricade fencing may be used to demarcate areas not to be cleared.
- Threatened Species Management Plans will not be required for migratory species.

Habitat disturbance and degradation

Potential impacts associated with fragmentation and edge effects will be largely managed in association with measures detailed within the following sections. In summary, potential impacts to adjacent vegetation and habitat will be managed through the management plans provided in **Attachment C2**, **Attachment C7** and **Attachment C8**, updates to these plans and a Weed and Pest Management Plan being developed by the CMJV.

A Weed and Pest Management Plan for the Project will be developed to help minimise/mitigate impacts of pest species on native flora and fauna within the Project Area. This plan will include measures to manage/control weed and pest animal species within the Project Area and surrounds during construction and operational phases of the Action, as detailed below.

- Weeds or soil removed as a result of construction activities are to be appropriately disposed of or stored separately to minimise potential spread and proliferation of weed species.
- Prior to vegetation clearing activities, a pre-clearance survey will be undertaken to identify and map infestations of biosecurity matter to minimise the spread during clearing works and operational phase.
- Waste management, including suitable disposal of waste food, to minimise occurrences of pest fauna.
- All vehicles, equipment and materials (e.g. landfill, soil etc) brought to site are to be certified free of biosecurity matter and carry weed hygiene certification.
- Rehabilitation monitoring to identify environmental weeds within rehabilitation areas
- Biosecurity monitoring to identify and assess the risk of weed and pest occurrences within the Action and adjacent mine areas.

- Control measures for target biosecurity species and other weed and pest species identified within the Action and adjacent mine areas.

Increased light, noise and dust levels

To mitigate the potential impacts of light, noise and dust during construction and operation of the Action, the following management measures will be applied:

- Where artificial lighting is required, directional lighting should be implemented
- Implementation of a Dust Management Plan, and
- Regular maintenance of machinery and mobile plants should be undertaken to minimise unnecessary noise.

Fauna injury and/or mortality

To mitigate potential impacts to fauna, including MNES species, the following management measures will be implemented during construction and operational phases of the Action:

- Vehicles are to remain on designated access tracks and adhere to site rules relating to speed limits
- Speed limits are to be clearly signposted to minimise potential fauna strike
- Removal of roadkill should be undertaken to minimise the risk of attracting other fauna to the road corridor
- Contingencies and procedures for the treatment of injured fauna
- Where installation of wire fencing is required to exclude personnel or vehicular traffic, consideration should be given to movement of fauna around and/or through such fencing, and
- Barbed wire should not be used on the top strand of wire fences unless necessary for security.

The above measures will also be included in Threatened Species Management Plans.

Increased risk of fire

Potential impacts from bushfire risk for the Action will be mitigated through the following measures:

- Managing vegetation within the MLs to maintain safe fuel loads and firebreaks
- Any chemicals used in the Project Area should be handled and disposed of in accordance with the relevant Material Safety Data Sheets
- Establishing and maintaining access tracks to be used by Queensland Fire and Rescue Service for emergency purposes; and
- Implementing an Emergency Response Procedure for fires prepared in consultation with emergency services.

Changes in hydrology

Further assessment and modelling of hydrologic conditions within and adjacent to the Project Area are required to characterise and quantify indirect Action impacts to groundwater and surface water hydrology on terrestrial GDEs and associated MNES fauna habitat.

Effective management/mitigation of Project impacts on terrestrial GDEs and associated MNES will require development of a Groundwater Dependent Ecosystem Monitoring and Management Plan, including annual monitoring of groundwater quality and potential drawdown to identify trends and changes over time in terrestrial GDEs, vegetation and habitat, within the predicted drawdown extent and downstream of the Action.

Monitoring

Monitoring will be undertaken during the construction and operation phases of the Action (and, where necessary, after completion of the Action) in order to assess Action impacts on MNES and gauge the efficacy of proposed impacts mitigation measures. Monitoring will focus on the quality and condition of vegetation and MNES fauna habitat adjacent to mining activities as well as vegetation communities located downstream of the Action. Monitoring methods, frequency of monitoring, and criteria for assessing the success (or otherwise) of impact mitigation measures will be detailed in the following management plans proposed for the Action:

- Weed and Pest Management Plan; and

- Groundwater Dependent Ecosystem Monitoring and Management Plan.

In addition, the management plans in place at COP are provided under **Attachment C** and will be updated as required to mitigate impacts from the Action.

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

Peabody are in the early stages of investigating potential offset properties in their existing property portfolio to determine an appropriate area(s) for acquitting impacts associated with the Action. In due course, Peabody will engage a third party to develop an Offset Strategy and Offset Area Management Plan(s) to a standard acceptable by DCCEEW. The location and extent of offsets will be established after detailed Project design and the precise extent of impacts are understood. Environmental offsets will be managed under appropriate management plans and subject to monitoring and performance criteria such that offsets are compliant with the Commonwealth Environmental Offsets Policy offset principles. The Peabody properties in the vicinity of the COP that are being investigated for potential offset suitability are outlined on **Figure 11**.

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 is not a nuclear action.

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. *

No Commonwealth Marine Areas occur within the Project Area or surrounds (**Attachment I**). The nearest Commonwealth Marine Area is situated over 250 km east of the Project Area.

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. *

Direct and indirect impacts on the GBR are very unlikely due to the Project's comprehensive planning, localized nature, and significant mitigation measures.

The Project Area is situated within the Isaac River catchment, a tributary of the Fitzroy River which eventually discharges into the Coral Sea near Port Alma, over 424 km southeast of the COP. The location of the Project in relation to the GBR is provided on **Figure 12**.

The key values of the GBR include biodiversity (habitats, terrestrial habitats that support the Great Barrier Reef, and species), geomorphological features, Aboriginal and Torres Strait Islander heritage, historical heritage, community benefits of the environment, and key environmental processes (GBRMP, 2021). Current pressures on the GBR at its key values include climate change and extreme weather, catchment run-off, coastal development, and direct uses.

The results of hydraulic modelling undertaken by Alluvium (2024) (**Attachment H**) indicate that the addition of the HG Diversion into the Harrybrandt Creek system is unlikely to negatively affect the current stream parameters in Harrybrandt Creek itself. Additional flows to Harrybrandt Creek will be similar to existing conditions in Humbug Gully, which is representative of the creek systems in the area.

Downstream impacts are possible during large flood events when there is a potential for greater erosional adjustments to occur than would otherwise occur if riparian vegetation were more established. The altered flow paths of the creeks will likely introduce sediments into new areas. Model results suggest that Harrybrandt Creek will transport these sediments downstream, particularly after receiving additional sediment from Thirty Mile Creek.

The catchment area of Harrybrandt Creek and Humbug Gully modelled as part of the HG Diversion design is 261 km2 (refer to Appendix A of **Attachment A**). This represents 0.18% of the Fitzroy River 142,665 km2 catchment area.

Due to the localized nature of the action and its outlined impacts, coupled with the significant distance from the site to the GBR outflow, direct impacts on the GBR from the Project are unlikely. Localised direct and indirect impacts may arise from alterations to surface flow volumes and water quality in the Project area and to the east. However, any such localised changes in flow volume will have negligible impacts downstream at the GBR, given the minor contribution of Harrybrandt Creek and Humbug Gully catchment (261 km2) relative to the extensive Fitzroy River catchment (142,665 km2). Additionally, any potential alterations to water quality – such as changes in dissolved inorganic nitrogen levels or sedimentation – will primarily be localized and become negligible at the GBR due to extensive dilution and mixing over the 424 km to the outflow point.

The likelihood of direct or indirect impacts is further diminished by comprehensive erosion control, sediment mitigation, and management plans already implemented at COP and those planned for the HG Diversion. These measures are detailed below and are designed to ensure that any potential environmental changes are effectively managed and contained within the local area.

HG Mining Area Management and Mitigation Measures

Existing sedimentation management measures at COP include erosion control structures that divert stormwater into natural or diverted watercourses, physical containment in sediment basins controlled or managed by de-siltation activities, and monitoring of receiving waters (upstream and downstream).

The COP operates under several relevant monitoring and management plans. These plans are outlined in **Attachment C** and include the following most relevant to the management of erosion and sediment control:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)
- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)

The Water Management Plan (Peabody, 2023) provided in **Attachment C1** provides an overview of contaminant source assessment, the water management system, water balance model, management measures and surface water monitoring program at COP. This document also includes Trigger Action Response Plans (TARPs) for multiple scenarios at COP, two of which are most relevant and are attached (i.e. TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C3** and TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C4**).

The existing COP water management and mitigation measures will be reviewed and updated to incorporate the impacts of the Action. The COP ESCP (**Attachment C2**) provides a guide for managing:

- Permanent drainage control, such as designing the diversion according to DERM guidelines and specifications and utilising vegetation as the primary method of stabilising channel banks, terraces and floodplain drainage paths.
- Drain velocity control, such as utilising logs, rocks, and integrating vegetation.
- Erosion control, utilising methods such as soil binders, revegetation, and cellular confinement systems
- Monitoring and emergency reporting.

Water quality sampling is routinely undertaken at ten locations upstream and downstream of the Action as part of the COP REMP (design document is provided under **Attachment C5**). The monitoring has been undertaken in accordance with the COP EA and includes water quality, sediment, and macroinvertebrate sampling. The sampling locations are shown on Figure 1 of **Attachment E** in the Receiving Environment Monitoring Plan Report 2022 and an overview of the latest water quality monitoring results are provided in **Section 3.4.1** of this application.

HG Diversion Management and Mitigation Measures

- The designed channel will include a 1 m excavated hyporheic zone which will enable sediments to deposit, to create a region of sediment and porous space below the stream bed, similar to the existing creeks in the area. This zone is important for hydrologic and ecologic function of the proposed diversion and enable continuity of those processes up and downstream.
- An optimized alignment was adopted to reduce construction cut material by utilizing existing gullies and following existing contours.
- Implementation of a revegetation program to provide for a healthy functioning riparian corridor with environmental values at least equivalent to adjoining reaches.
- The diversion has been designed and will be constructed to operate in “dynamic equilibrium” with adjoining reaches such that it is self-sustaining and does not require any ongoing management intervention in the longer term. However, the post construction measures to be adopted are outlined below.
- The COP ESCP (**Attachment C2**) will form the basis of a Project specific ESCP that will be developed prior to commencement of works.
- Peabody will develop a diversion monitoring program to assess the performance and condition of the diversion. The recommended monitoring program is based upon the “*Monitoring and Evaluation Program for Bowen Basin Diversions*” undertaken by ACARP (2001).

Regular maintenance will include maintaining minor drainage channels and batter chutes (if any are required), controlling weed and pest animals, and controlling stock access to the diversion.

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. *

Surface water

The Proposed Action has the potential to impact surface water resources through direct disturbance associated with open cut mining, creation of new temporary and permanent landforms that affect flood waters and (if required) through the release of water to the surrounding environment from the on-site water management system (in accordance with the existing EA). The HG Diversion is also likely to alter the catchment areas and flow characteristics due to the construction (temporary and permanent) of water management infrastructure (**Figure 7**).

The results of modelling undertaken by Alluvium (2024) (**Attachment H**) indicated that the diverted flows from Humbug Gully and Thirty Mile Creek will effectively combine four tributary catchment areas into one drainage line. The impact of concentrated flow will cause a convergence of peak flow timing and higher peak flows in most design flood events for areas along the Harrybrandt Creek reach upstream of the Humbug

Gully/Harrybrandt Creek confluence. In addition, there will be an increase in peak flow discharged from the confluence in the 2% and 1% AEP events. An overview of the impact of the HG Diversion is provided as follows:

- Reduction in peak flows across the lower reaches of Humbug Gully by approximately 30% and 75% in 0.1% and 50% AEP events, respectively.
- Reduction flood extents and flood levels across the lower reaches of Humbug Gully and Thirty Mile Creeks reaches.
- Increase in peak flow upstream of the confluence of Harrybrandt Creek and Humbug Gully by 14% and 16% in 2% and 1% AEP events, respectively.
- Increase in peak flow downstream of the confluence by 3% and 5% in 2% and 1% AEP events, respectively.
- Increase flood levels (up to 0.20 m in 1% AEP) and extents (up to 50m increase in areas for 2% AEP and higher) across the upper and lower reaches of Harrybrandt Creek.
- Increase and/or decrease flood depth in relation with water level. Flood depths will typically increase through the lower reach of Harrybrandt Creek, while Humbug Gully depths decrease for infrequent to rare storm events (i.e. 2% AEP or greater).

Indirect impacts will likely result from changes to surface flow volumes to the east, where fringing riparian habitats are identified as potential Terrestrial GDEs and supporting habitat for MNES threatened fauna. Changes in surface water quality may also impact terrestrial ecosystems downstream of disturbance associated with the Action due to increased erosion and sedimentation of receiving surface waters and mobilisation of other contaminants in runoff from construction and disturbance areas. These changes in water quality have the potential to impact vegetation and habitat fringing the Humbug Gully in the area of the HG Diversion as well as communities located downstream of the HG Diversion, including Humbug Gully and Harrybrandt Creek. Peabody has adopted, and will adopt (post construction), the following mitigation and management measures to minimise erosion and overall sediment load into receiving watercourses. These actions include the following:

Engineered and design controls

- The designed channel will include a 1 m excavated hyporheic zone which will enable sediments to deposit, to create a region of sediment and porous space below the stream bed, similar to the existing creeks in the area. This zone is important for hydrologic and ecologic function of the proposed diversion and enable continuity of those processes up and downstream.
- An optimized alignment was adopted to reduce construction cut material by utilizing existing gullies and following existing contours.
- Implementation of a revegetation program to provide for a healthy functioning riparian corridor with environmental values at least equivalent to adjoining reaches.

Post construction management

- Peabody will develop a diversion a monitoring program to assess the performance and condition of the diversion. The recommended monitoring program is based upon the "*Monitoring and Evaluation Program for Bowen Basin Diversions*" undertaken for ACARP (2001).
- Regular maintenance will include maintaining minor drainage channels and batter chutes (if any are required), controlling weed and pest animals, and controlling stock access to the diversion.

Existing sedimentation management measures at COP include erosion control structures that divert stormwater into natural or diverted watercourses, physical containment in sediment basins controlled or managed by de-siltation activities, and monitoring of receiving waters (upstream and downstream). The existing COP water management and mitigation measures will be reviewed and updated to incorporate the impacts of the Action and to manage water in accordance with the COP EA. The COP ESCP will form the basis of a project specific ESCP. Management plans are provided under **Attachment C**.

Peabody recognises the requirement for project-specific surface water impact assessments to be undertaken to effectively determine the potential impacts of the Action on water resources, including changes to flood and flow regimes as a result of the Action. Peabody intends to engage a third party to complete a surface water

modelling and impact assessment to meet the requirements of the EPBC Act, the IESC and all relevant guidelines.

Groundwater

The Action has the potential to impact groundwater resources through direct interaction with aquifers by open cut mining activities and indirect take from adjacent aquifers due to changes in hydraulic gradients. Potential impacts to groundwater resources may include potential drawdown of groundwater levels, alteration of groundwater flow directions and decrease in baseflow to surface water systems; localised effects on groundwater quality; and long term changes to groundwater levels and flow direction in the vicinity of final voids (**Figure 8** & **Figure 9**).

Direct impacts may also occur to third party users of water resources.

Groundwater drawdown and quality changes may have an indirect impact on terrestrial GDEs and associated habitat for MNES fauna. The Action is likely to result in impacts to ecosystems and GDE function reliant on water resources.

Peabody recognises the requirement for project-specific groundwater impact assessments to be undertaken to effectively determine the potential impacts of the Action on water resources. These impact assessments shall be procured and will meet the requirements of the EPBC Act, and the IESC and all associated Guidelines. Project-adjacent groundwater reports (attached to this referral) infer that the following impacts from the Action are likely.

Groundwater dependent ecosystems (GDEs)

Vegetation clearing for the Project may have direct impacts on potential terrestrial GDEs resulting from clearing for the HG Diversion and HG Mining Area, as detailed in Section 5.1 of the E2M Terrestrial Ecology Assessment (2024) (**Attachment G**) (**Figure 10**).

Indirect impacts to GDEs may result from the HG Diversion, which will have a downstream influence on surface flow volumes to the east, where fringing riparian habitats are identified as potential Terrestrial GDEs. Groundwater drawdown may also impact GDEs and associated habitat for MNES fauna species (in particular greater glider and koala).

Peabody recognises the requirement for a project specific GDE impact assessment to be undertaken to effectively determine the impacts of the Action. This impact assessment will be commenced in due course and will align with the Groundwater Modelling and Impact Assessment for the Action planned to commence in Q3 of 2024.

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. *

According to Section 4.2 of the "*Significant impact guidelines 1.3: Coal seam gas and large coal mining developments—impacts on water resources*" an Action is considered to have a significant impact on a water resource if it has a real or not remote chance or possibility of directly or indirectly causing changes in the water's hydrology or quality, which decreases, or risks decreasing, the utility of the water for other users, including for environmental and public benefits.

The Action involves the alteration of water resources, i.e. Humbug Gully, to be diverted into the Thirty Mile North and South Arm, ultimately increasing flow into Harrybrandt Creek and decreasing flow to the downstream extents of Humbug Gully. The Action also involves the extraction of coal within the HG Mining Area. As such, the Action is likely to directly impact water resources in relation to a large coal mining development or coal seam gas.

In lieu of the project-specific modelling and impact assessment results, Peabody has adopted the precautionary principal, and as such, considers the Action's potential impacts to water resources to be significant.

Peabody shall engage a third party to complete a surface water modelling and impact assessment to meet the requirements of the EPBC Act, the IESC and all relevant guidelines. It is anticipated, given a period of data collection is required, that the Groundwater Modelling and Impact Assessment for the Action will be available to inform the assessment stage of the EPBC Act approval in Q1 2025.

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. *

Peabody consider that the Action is a Controlled Action based on the potential impacts on MNES or is likely to have, a significant impact on MNES which requires further assessment under the EPBC Act for impacts to threatened species and threatened ecological communities and a water resource in relation to coal seam gas development and large coal mining development.

In lieu of the project-specific assessment results, Peabody has adopted the precautionary principal, and as such, considers the Action's potential impacts to water resources to be significant.

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. *

These environmental management and monitoring plans in place at COP are outlined in **Attachment C**. Following the outcomes of detailed impact assessments any additional measures will be developed to supplement the existing monitoring and management systems at COP. Management plans specific to the Action, such as an Erosion and Sediment Control plan for the construction of the HG Diversion, will be developed and implemented prior to works commencing.

These measures are detailed below and are designed to ensure that any potential environmental changes are effectively managed and contained within the local area.

HG Mining Area Management and Mitigation Measures

Existing sedimentation management measures at COP include erosion control structures that divert stormwater into natural or diverted watercourses, physical containment in sediment basins controlled or managed by de-siltation activities, and monitoring of receiving waters (upstream and downstream).

The COP operates under several relevant monitoring and management plans. These plans are outlined in **Attachment C** and include the following most relevant to the management of erosion and sediment control:

- Water Management Plan (CB-ENV-WATERMGTPLAN) (Peabody, 2023) (**Attachment C1**)
- Erosion and Sediment Control Plan (Peabody, March 2018) (**Attachment C2**)
- TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C3**)
- TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) (**Attachment C4**)

- Receiving Environment Monitoring Program (REMP) Design Document (GAUGE, April 2022) (**Attachment C5**)

The Water Management Plan (Peabody, 2023) provided in **Attachment C1** provides an overview of contaminant source assessment, the water management system, water balance model, management measures and surface water monitoring program at COP. This document also includes Trigger Action Response Plans (TARPs) for multiple scenarios at COP, two of which are most relevant and are attached (i.e. TARP for Pre-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C3** and TARP for Post-rain event erosion and sediment control inspections (Peabody, 2019) under **Attachment C4**).

The existing COP water management and mitigation measures will be reviewed and updated to incorporate the impacts of the Action. The COP ESCP (**Attachment C2**) provides a guide for managing:

- Permanent drainage control, such as designing the diversion according to DERM guidelines and specifications and utilising vegetation as the primary method of stabilising channel banks, terraces and floodplain drainage paths.
- Drain velocity control, such as utilising logs, rocks, and integrating vegetation.
- Erosion control, utilising methods such as soil binders, revegetation, and cellular confinement systems.
- Monitoring and emergency reporting.

Water quality sampling is routinely undertaken at ten locations upstream and downstream of the Action as part of the COP REMP (design document is provided under **Attachment C5**). The monitoring has been undertaken in accordance with the COP EA and includes water quality, sediment, and macroinvertebrate sampling. The sampling locations are shown on Figure 1 of **Attachment E** in the Receiving Environment Monitoring Plan Report 2022 and an overview of the latest water quality monitoring results are provided in **Section 3.4.1** of this application.

A Groundwater Management and Monitoring Plan will also be developed following completion of detailed impact assessments.

HG Diversion Management and Mitigation Measures

- The designed channel will include a 1 m excavated hyporheic zone which will enable sediments to deposit, to create a region of sediment and porous space below the stream bed, similar to the existing creeks in the area. This zone is important for hydrologic and ecologic function of the proposed diversion and enable continuity of those processes up and downstream.
- An optimized alignment was adopted to reduce construction cut material by utilizing existing gullies and following existing contours.
- Implementation of a revegetation program to provide for a healthy functioning riparian corridor with environmental values at least equivalent to adjoining reaches.
- The diversion has been designed and will be constructed to operate in “dynamic equilibrium” with adjoining reaches such that it is self-sustaining and does not require any ongoing management intervention in the longer term. However, the post construction measures to be adopted are outlined below.
- The COP ESCP (**Attachment C2**) will form the basis of a Project specific ESCP that will be developed prior to commencement of works.
- Peabody will develop a diversion monitoring program to assess the performance and condition of the diversion. The recommended monitoring program is based upon the “*Monitoring and Evaluation Program for Bowen Basin Diversions*” undertaken by ACARP (2001).

Regular maintenance will include maintaining minor drainage channels and batter chutes (if any are required), controlling weed and pest animals, and controlling stock access to the diversion.

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

Offsets for surface water and groundwater are not anticipated to be required. This will be confirmed following completion of the relevant assessments assessing impacts on water resources.

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. *

A search of the EPBC Act database using the Protected Matters Search Tool (DCCEEW, 2023) (**Attachment I**) indicates that no areas of Commonwealth Land occur within the Project Area or surrounds.

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. *

A search of the EPBC Act database using the Protected Matters Search Tool (DCCEEW, 2023) (**Attachment I**) indicates that no areas of overseas Commonwealth heritage places occur within the Project Area or surrounds.

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. *

Resource extraction is constrained by the local geology and location of a targeted economically viable resource. The approved COP operations depend on the location of the coal resource targeted within the Macarthur Seam of the Rangal Coal Measures and its constituent sub-seams, including the Phillips and Leichhardt Seams occurring within ML 70164 and ML 70236.

The Action aims to continue existing mining activities within authorised MLs. If the Proposed Action did not proceed, it would not contribute to the significant economic growth provided by QLD's growing export industry, the value that the coal resource would provide through State royalties and Commonwealth tax revenue would be foregone, and employment opportunities and social and community benefits for the region would not be realised.

The HG Diversion is required to enable the mining activities and access economic resources within the HG Mining Area. Due to its location, no alternative to the proposed diversion was possible. In addition, the diversion forms part of a larger developmental project aimed at improving current infrastructure performance, rehabilitation outcomes and closure arrangements at COP.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

Type	Name	Date	Sensitivity	Confidence

#1.	Document	Attachment A - Alluvium Diversion Design Report_Optimized.pdf Diversion Design Report		No	High
#2.	Document	Attachment J - Key Terms, Acronyms & References.pdf Attachment J - Key Terms, Acronyms & References		No	High
#3.	Document	Figures.pdf Figures 1- 12		No	High

1.2.5 Information about the staged development

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A - Alluvium Diversion Design Report_Optimized.pdf Diversion Design Report		No	High
#2.	Document	Figures.pdf Figures 1- 12		No	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	Attachment K - Cultural Heritage Management Plan.pdf Coppabella Mine: Cultural Heritage Management Plan	19/05/2010	Yes	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment K - Cultural Heritage Management Plan.pdf Coppabella Mine: Cultural Heritage Management Plan	19/05/2010	Yes	High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment B - Peabody Safety-Health-and-Environment-Policy.pdf Attachment B - Peabody Safety Heath and Environment Policy			High
#2.	Document	Attachment C - Management and Monitoring Plans.pdf Management and Monitoring Plans		No	High
#3.	Document	Attachment K - Cultural Heritage Management Plan.pdf Coppabella Mine: Cultural Heritage Management Plan	19/05/2010	Yes	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.	Document	Attachment B - Peabody Safety-Health-and-Environment-Policy.pdf		No	High

		Attachment B - Peabody Safety Heath and Environment Policy			
#2.	Document	Attachment D - Peabody 2024 Sustainability Report_Final.pdf Attachment D - Peabody 2024 Sustainability Report		No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Figures.pdf Figures 1- 12		No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#2.	Document	Attachment E - CCM Receiving Environment Monitoring Plan REPORT 2022.pdf Attachment E - CCM REMP		No	High
#3.	Document	Attachment F - Aquatic Ecology Report.pdf Attachment F - Aquatic Ecology Report		No	High
#4.	Document	Figures.pdf Figures 1- 12		No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High
#2.	Document	Figures.pdf Figures 1- 12		No	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High
#2.	Document	Figures.pdf Figures 1- 12		No	High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment K - Cultural Heritage Management Plan.pdf Coppabella Mine: Cultural Heritage Management Plan	19/05/2016	Yes	High

#2.	Document	Figures.pdf Figures 1- 12		No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment F - Aquatic Ecology Report.pdf Attachment F - Aquatic Ecology Report		No	High
#2.	Document	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High
#3.	Document	Attachment H - Alluvium Diversion Hydraulic Modelling.pdf Attachment H - Alluvium Diversion Hydraulic Modelling		No	High
#4.	Document	Figures.pdf Figures 1- 12		No	High

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A - Alluvium Diversion Design Report_Optimized.pdf Diversion Design Report		No	High
#2.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#3.	Document	Attachment E - CCM Receiving Environment Monitoring Plan REPORT 2022.pdf Attachment E - CCM REMP		No	High
#4.	Document	Attachment H - Alluvium Diversion Hydraulic Modelling.pdf Attachment H - Alluvium Diversion Hydraulic Modelling		No	High
#5.	Document	Figures.pdf Figures 1- 12		No	High

4.1.2.3 (National Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A - Alluvium Diversion Design Report_Optimized.pdf Diversion Design Report		No	High
#2.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#3.	Document	Attachment E - CCM Receiving Environment Monitoring Plan REPORT 2022.pdf Attachment E - CCM REMP		No	High
#4.	Document	Attachment H - Alluvium Diversion Hydraulic Modelling.pdf Attachment H - Alluvium Diversion Hydraulic Modelling		No	High
#5.	Document				

		Figures.pdf Figures 1- 12		No	High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#2.	Document	Attachment E - CCM Receiving Environment Monitoring Plan REPORT 2022.pdf Attachment E - CCM REMP		No	High
#3.	Document	Attachment H - Alluvium Diversion Hydraulic Modelling.pdf Attachment H - Alluvium Diversion Hydraulic Modelling		No	High
#4.	Document	Figures.pdf Figures 1- 12		No	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	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High
#2.	Document	Figures.pdf Figures 1- 12		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	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High

4.1.4.8 (Threatened Species and Ecological Communities) Why you think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#2.	Document	Attachment K - Cultural Heritage Management Plan.pdf Coppabella Mine: Cultural Heritage Management Plan	19/05/2016	Yes	High

4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Figures.pdf Figures 1- 12		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	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High

4.1.5.11 (Migratory Species) Proposed offsets relevant to avoidance or mitigation measures

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Figures.pdf Figures 1- 12		No	High

4.1.7.3 (Commonwealth Marine Area) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment I - Protected Matters Search Tool MNES Results.pdf Attachment I - Protected Matters Search Tool MNES		No	High

4.1.8.3 (Great Barrier Reef) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A - Alluvium Diversion Design Report_Optimized.pdf Diversion Design Report		No	High
#2.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans			High
#3.	Document	Attachment E - CCM Receiving Environment Monitoring Plan REPORT 2022.pdf Attachment E - CCM REMP		No	High

#4.	Document	Attachment H - Alluvium Diversion Hydraulic Modelling.pdf Attachment H - Alluvium Diversion Hydraulic Modelling		No	High
#5.	Document	Figures.pdf Figures 1- 12		No	High

4.1.9.2 (Water resource in relation to large coal mining development or coal seam gas) Why your action has a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#2.	Document	Attachment G - Terrestrial Ecology Report.pdf Attachment G - Terrestrial Ecology Report		No	High
#3.	Document	Attachment H - Alluvium Diversion Hydraulic Modelling.pdf Attachment H - Alluvium Diversion Hydraulic Modelling		No	High
#4.	Document	Figures.pdf Figures 1- 12		No	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	Attachment C - Management and Monitoring Plans.pdf Attachment C - Management and Monitoring Plans		No	High
#2.	Document	Attachment E - CCM Receiving Environment Monitoring Plan REPORT 2022.pdf Attachment E - CCM REMP			High

4.1.10.3 (Commonwealth Land) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment I - Protected Matters Search Tool MNES Results.pdf Attachment I - Protected Matters Search Tool MNES		No	High

4.1.11.3 (Commonwealth heritage places overseas) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment I - Protected Matters Search Tool MNES Results.pdf Attachment I - Protected Matters Search Tool MNES		No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	65077890932
Organisation name	PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) PTY LTD
Organisation address	Peabody Australia, GPO Box 164, Brisbane, QLD. 4001
Representative's name	Marianne Gibbons
Representative's job title	Senior Manager - Environment & Approvals
Phone	+61427321361
Email	mgibbons@peabodyenergy.com
Address	Level 14, 31 Duncan Street, Fortitude Valley, QLD 4006

☑ 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, **Marianne Gibbons of PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) 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.

Same as Referring party 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, **Marianne Gibbons of PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) 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, **Marianne Gibbons of PEABODY ENERGY AUSTRALIA PCI (C&M MANAGEMENT) 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. *