



Statement of Reasons for Approval under the Environment Protection and Biodiversity Conservation Act 1999

I, DECLAN O'CONNOR-COX, Branch Head, Department of Climate Change, Energy, the Environment and Water (the **department**), delegate for the Minister for the Environment and Water (**Minister**), provide the following statement of reasons for my decision of 9 January 2025, under subsection 130(1) and section 133 of the Environment Protection and Biodiversity Conservation Act 1999 (**EPBC Act**), to approve the proposed action by Queensland Coking Coal Pty Ltd (a subsidiary of Vitrinite Pty Ltd) (the **proponent**) to construct, operate, rehabilitate and decommission an open-cut mining area with a maximum depth of 60 m, a highwall mining trial area, rail loop loading facility and additional infrastructure (the Vulcan South Coal Mine), 35 km south of Moranbah, located in Dysart, Queensland (EPBC 2023/09708, **proposed action**).

Legislation

- 1) The legislative provisions relevant to my decision to which I refer to in my reasons are set out in **Annexure A**.

Background

- 2) A referral was received by the department on 5 February 2024. The proposed action was referred by Mining & Energy Technical Services Pty Ltd, on behalf of the proponent, a subsidiary of Vitrinite Pty Ltd, which stated its belief that the proposal is a controlled action for the purposes of the EPBC Act.
- 3) The proposed action is the construction, operation, rehabilitation and decommissioning of a new open-cut mining area, a small highwall mining trial area, rail loop loading facility and additional infrastructure located within the Mining Lease Application area (MLA) 700073. The proposed action is located approximately 35 kilometres (km) south of Moranbah in Queensland's Bowen Basin and is south of the proponent's established Vulcan Complex Project approved under the EPBC Act on 9 March 2022 (EPBC 2020/8676) and Vulcan Coal Mine – Matilda Pit and Ancillary Infrastructure which is currently under assessment (EPBC 2022/09361). The proposed action lies to the west of several established mining operations including BHP Billiton Mitsubishi Alliance's (BMA) Peak Downs (EPBC 2022/09350) and Saraji Mines (EPBC 2019/8576, 2016/7791, 2013/6868).
- 4) I noted that the Public Environment Report (**PER**) states the proposed action MLA is 3,819 hectares (ha). The total disturbance footprint of the proposed action is 1,476.4 ha, which includes the proposed infrastructure and area potentially to be impacted directly and indirectly.
- 5) I noted that the PER states that the proposed action includes four components:

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- a) Three separate open-cut pits (Vulcan North, Main and South pits) targeting the Alex and multiple Dysart Lower coal seams, where premium hard coking coal and thermal coal byproducts will be mined via truck-and-shovel operations in progressive stages such that the three pits will be operational sequentially. The pits will be approximately 34 to 60 metres (m) in maximum depth. The pits will operate for approximately seven years total and will extract approximately 13.5 megatonnes of run-of-mine (ROM) coal, predominately hard coking coal. An out-of-pit waste rock dump will be established at each pit for in-pit dumping activities during operations, with remaining voids to be backfilled upon cessation.
 - b) A highwall mining trial program includes an extraction of coal involving a highwall miner and the establishment of four mining benches across several hillsides in the north of the MLA. The proposed highwall mining program aims to transport up to 750 kilotonnes of coal to the coal handling and preparation plant (CHPP) via a haul road. The highwall mining program is proposed to operate for up to one year. If the highwall mining trial were to commence during the construction period of the proposed action, the extracted ROM coal may be handled through adjacent Vulcan Coal Mine infrastructure (Vulcan Complex Project).
 - c) A modular CHPP where tailings will be dewatered to produce a dry tailings waste product for permanent storage within waste rock dumps. The CHPP will operate 24 hours per day, seven days per week. It is proposed to be in operation for approximately 6 years.
 - d) A rail loop and train load-out facility (TLO) is proposed to transport coal processed on the site to terminals at either Dalrymple Bay or Gladstone via the established Goonyella Rail network for export at a rate of 3,500 tons per hour. The proposed facility is located between the Vulcan North and Vulcan Main pits. The rail loop will be approximately 4.97 km long along its centreline.
- 6) The proposed action will include clearing of vegetation, mining, coal transportation and coal handling and processing. I noted that the PER states that the duration of construction of the CHPP, TLO and associated infrastructure is proposed to be approximately two years. Other infrastructure to be constructed includes explosive magazine, administration buildings and warehouses, fuel storage and workshops, ROM pad, haul road mine, access road, internal roads and culverts. No wet tailings are proposed, thus no tailings dams are required. The sealed Saraji road will be realigned and remain in perpetuity following the completion of the proposed action.
 - 7) There are no construction camps and facilities, or workers' accommodation and facilities associated with the proposed action.
 - 8) The key infrastructure will be maintained on an ad-hoc basis during the proposed action operation. Internal road networks, surface water management infrastructure and other ancillary infrastructure will be established continuously as the pits advance.
 - 9) Most infrastructure within the project area, including ancillary infrastructure, CHPP, Rail loop and TLO will be removed and the land will be de-contaminated, rehabilitated and decommissioned. All infrastructure related waste material such as concrete, bitumen, tyres and fencing will be demolished/removed and disposed of offsite.

- 10) Section 74A(1) of the EPBC Act states that if the minister (or delegate) is satisfied that the action that is the subject of the referral is a component of a larger action the person proposes to take, the minister (or delegate) may decide not to accept the referral. This is a discretionary power. When I determined the proposed action to be a controlled action, I noted the interrelationships with a number of other projects and concluded that the proposed action as referred is a component of a larger action, but I accepted the referral.
- 11) I noted that section 4 of the PER outlines the environment in the project area. A detailed description of the environment is provided in the Terrestrial Ecological Assessment, the Soil and Land Suitability Assessment, the Geochemical Assessment, the Surface Water Assessment, the Groundwater Impact Assessment, and the Aquatic Ecology Study.
- 12) The proposed action is located within the Northern Bowen Basin subregion of the Brigalow Belt North bioregion. As stated in section 4.2 of the PER, the project area is used primarily for low-intensity cattle grazing on open grassy Eucalyptus and Acacia woodlands composed primarily of remnant vegetation, some cleared pastures and high-value regrowth. Forty-two percent of the proposed disturbance footprint had been previously cleared of its natural vegetation with the remaining 58% comprising native remnant vegetation with an understorey that has been highly modified by grazing. The Terrestrial ecology report reported that 56 species of non-native species were found including 7 common weed species found at over 30% of sampling sites and 6 species that are classed as Weeds of National Significance. Eight introduced fauna species were also recorded in the survey area, including Feral cats (*Felis catus*), Red fox (*Vulpes vulpes*), European rabbit (*Oryctolagus cuniculus*), and Cane toad (*Rhinella marina*).
- 13) I noted that the PER states that there are four main land systems in the project area. The Carborough Land System characterised by mountains and hills with shallow, coarse-textured, rocky soils. Connors Land System is characterised by alluvial plains with terraces and levees up to 3 km wide, with thick sandy topsoil and neutral to strongly alkaline subsoil. The Cotherstone Land System is characterised by hills and prominent strike ridges, as well as gentler undulating terrain, with soils that vary from shallow coarse textured rock soils to texture contrast soils with sandy topsoil. The Moneagle Land System characterised by low-lying plans and colluvial footslopes. Soils have thick sandy topsoil and neutral to sternly alkaline subsoils.
- 14) A rail line (Goonyella System) and a sealed highway (Saraji Road) run along the eastern edge of the project area. The surrounding environment to the north and east is existing coal mining operations and to the west is an extensive sandstone range (Cherwell/Harrow Range) that supports large tracts of remnant open forest.
- 15) I noted that the project area is located within the Isaac western upland tributaries area of the Isaac River sub-basin of the greater Fitzroy Basin, in the headwaters of the Boomerang (tributary of the Isaac River), Hughes (tributary of Boomerang Creek), Barret (tributary of Hughes Creek) and Harrow creek catchments. The surface water resources within the project area consists of farm dams, two billabongs and ephemeral watercourses. The proponent documentation states that groundwater at the site ranges from 5 m to 40 m deep and generally flows from west to east towards the existing Saraji Mine. There are some potential groundwater dependent ecosystems (GDEs) within project area.

Procedural History

Referral, controlling provisions, assessment approach decision and public consultation

- 16) The valid referral of the proposed action was referred to the department on 5 February 2024 by the proponent. The referral was published on the department's website and the public comments were invited for 10 business days. A total of 13 public submissions were received, which raised concerns over climate change and greenhouse gas emissions, impacts on water resources, impacts on listed threatened species and ecological communities, cumulative impacts, and indirect impacts on tourism.
- 17) On 5 February 2024, in accordance with section 74(1) of the EPBC Act, the following ministers were invited to comment on the referral:
 - a) The Hon Linda Burney MP, Minister for Indigenous Australians; and
 - b) The Hon Madeleine King MP, Minister for Resources and Northern Australia.
- 18) On the same day, Mr Chris Loveday, Director of Technical and Assessment Services, Department of Environment, Tourism, Science and Innovation (DETSI) was invited to comment on the referral.
- 19) The following comments were received in response to the above invitations:
 - a) On 19 February 2024, the National Indigenous Australian Agency commented in response to the invitation to the Hon Linda Burney MP, providing the proponent with advice to assist in their ongoing engagement with Traditional Owners and other First Nations stakeholders.
 - b) On 19 February 2024, Geoscience Australia commented in response to the invitation to Hon Madeleine King MP, noting that the proposed action is unlikely to have a significant impact on water resources, and raised concerns over incremental applications to increase the size of mines and the cumulative impacts of these projects.
 - c) On 20 February 2024, Mr Chris Loveday responded stating that the proposed action would not be assessed under the EIS process in chapter 3 of the Environmental Protection Act 1994 (**EP Act**).
- 20) On 1 March 2024, I determined the proposed action to be a controlled action, due to likely significant impacts on listed threatened species and communities (section 18 and 18A), and a water resource, in relation to coal seam gas and large coal mining development (section 24D and 24E). On the same date I decided the proposed action would be assessed by PER.
- 21) On 9 April 2024, pursuant to section 97(5) of the EPBC Act, comments were invited on the draft PER guidelines from the proponent to be provided within 10 business days. The department received comments on the draft PER guidelines from the proponent on 17 April 2024.
- 22) On 1 May 2024, the department provided the final PER guidelines (the Guidelines) to the proponent.
- 23) On 10 May 2024, the proponent submitted a draft PER to the department.

- 24) On 10 May 2024, the department sought advice from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (**IESC**) on the adequacy of information provided in the draft PER.
- 25) On 20 June 2024, the department determined, and advised the proponent the draft PER did not adequately meet the requirements of the Guidelines.
- 26) On 20 June 2024, the department received advice from IESC. The IESC advice was provided to the proponent on 24 June 2024.
- 27) On 26 July 2024, the proponent resubmitted a draft PER to the department following comments from the department and IESC.
- 28) On 13 August 2024, the department determined, and advised the proponent that, the draft PER did not adequately meet the requirements of the Guidelines.
- 29) On 22 August 2024, the proponent resubmitted a draft PER to the department following comments from the department.
- 30) On 26 August 2024, the proponent provided minor updates on the draft PER, the Terrestrial Ecological Assessment and Offset Strategy documents.
- 31) On 27 August 2024, the proponent provided further updates on the draft PER, IESC response table and Offset Strategy, following comments from the department.
- 32) On 3 September 2024, in accordance with section 98(2) of the EPBC Act, the department approved the publication of the draft PER and invited public comments for 20 business days. The Notice for public comment was published between 6 September 2024 and 3 October 2024, both electronically and in hard copy, at the following locations:
 - a) Moranbah Library – Governor Complex, Batchelor Parade, Town Square Moranbah QLD 4744; and
 - b) Department of Environment, Science and Innovation Office – 99 Hospital Road, Emerald QLD 4720.
- 33) On 9 October 2024, the proponent provided the final PER to the department, noting that 194 public comments were received during the public comment period.
- 34) Of the 194 public comments received, 182 were identical campaign comments, and 11 unique comments. Topics raised in the comments included:
 - a) Concerns over Greenhouse Gas Emissions. Including the concern that the mine extensions will not accurately portray the total emissions from the mine. Additionally, that the Greenhouse Gas Emissions were excessive.
 - b) Concerns on habitat loss. Including the large area of habitat loss for both Koala (*Phascolarctos cinereus*) and Greater glider (*Petauroides volans*). Additionally, some public comments raised that habitat loss varied between state and federal documentation.
 - c) Concerns on impacts to surface and groundwater. Including insufficient monitoring efforts, no commitment to replace bores destroyed by the proposed action, and lack of understanding of surface water chemical changes.

- d) The comment in support of the proposed action, noted the good relationship the proponent has with the Traditional Owner group.
- 35) Comments were taken into consideration by the proponent and adequately responded to in the final PER.
- 36) On 13 November 2024 and 18 November 2024, concerns were raised by members of the public that their comments had not been adequately addressed by the proponent. The department noted, and I agreed, that there was no new information received that had not been addressed.
- 37) Accordingly, the department considered, and I agreed, that the proponent had complied with their obligations under section 99(3) of the EPBC Act.
- 38) On 23 October 2024, the proponent published the final PER for information only, in accordance with subsection 99(4) of the EPBC Act.
- 39) On 29 November 2024, an acting delegate to the Minister of the Environment and Water extended the time in which to make a decision whether or not to approve a controlled action as specified in section 130(1A), 130(1B) and 130(4) of the EPBC Act. The period was extended by 14 business days.
- 40) My decision on whether or not to approve the proposed action was due by 9 January 2025.
- 41) I invited comment on the decision I proposed to make from the proponent, Commonwealth Minister for Resources and Northern Australia, and the Queensland Department of Environment, Tourism, Science and Innovation (DETSI) on 10 December 2024.
- 42) Comments were received from the proponent and the resulting changes to the conditions are discussed below.

Indigenous cultural significance

- 43) The Barada Barna People are the native title holders for the broader project area. They are represented by the Barada Barna Aboriginal Corporation RNTBC ICN 8343.
- 44) I noted that section 3.4 of the PER states that there are no areas of Indigenous cultural heritage importance in the project area.
- 45) I noted that the PER states that a representative of the Barada Barna peoples will be notified and the artifact will be removed prior to clearing if any artifacts are found. Management of Aboriginal cultural heritage will be in accordance with the Indigenous land use agreement (ILUA) under the *Queensland Aboriginal Cultural Heritage Act 2003*.

Proposed action alternatives

- 46) I noted that section 3 of the PER noted that no favourable alternatives for the proposed action were identified. Possible timing and location options were identified as alternatives but are not undertaken due to the following reasons:
- a) The shorter timeframe option notes that to complete the proposed action in a shorter timeframe, larger mining machinery and processing facilities would be required, or all pits must be mined simultaneously. The PER notes that this proposed action is relatively small-scale. Additionally, sequential staging of mining as opposed to simultaneous mining allows

for progressive rehabilitation and permits east-west dispersal of wildlife through the project area.

- b) The alternative location option, noting that the positioning of the project area is constrained by the location of Saraji Road and adjacent project tenements directly east of the proposed action. The project area is also constrained by several watercourses further west, in addition to the Harrow Range. The placement of infrastructure has been determined to minimise impacts to drainage features and water courses, such as maintaining large corridors between all pits, and avoiding Plumtree Creek and the Hughes Creek that contain high value habitat for the Koala and Greater glider. The infrastructure is designed to be in a practical location to the coal seam and in close proximity to other related infrastructure to reduce transportation disturbance footprint and carbon emissions of vehicles.
- c) The PER states that the 'no action' alternative has consequences including the loss of sustained positive economic opportunities of the local area and region.

Additional information requests

- 47) On 13 November 2024, the department prepared and sent a Request for Further Information under Section 132 of the EPBC Act to the proponent. This request included:
 - a) further information to ensure the OMP meets the requirements of the EPBC Act environmental offset policy (2012), and
 - b) further information related to the Environmental Management Plan (**EMP**), Erosion and Sediment Control Plan (**ESCP**) and Receiving Environment Monitoring Plan (**REMP**), and the EA conditions, in relation to groundwater and surface water monitoring and management.
- 48) On 15 November 2024, in response to the section 132 request for further information, the department received an updated EMP, an updated ESCP and an updated REMP from the proponent. The department accepted these plans as the final versions, and I agreed.
- 49) On 20 November 2024, the department received an updated OMP from the proponent.
- 50) On 25 November 2024, the department requested the proponent update the Brigalow TEC and Greater glider EPBC Act listing status from Vulnerable to Endangered, to reflect the status as at the time of referral, in the offset calculations and broader OMP.
- 51) On 25 November 2024, the department received the final OMP. The department determined the version received was adequate and I agreed.

State assessment and approval

- 52) The proposed action will occur on granted mining lease (ML) 700073. The ML is situated over multiple underlying resource tenures, including Exploration Permits Coal (EPC) and Parcel Prospecting Permits.
- 53) The proposed action has received the required State approvals including an EA (P-EA-100265081) under the EP Act and mining lease under the *Mineral Resources Act 1979*.

Evidence or other material on which my findings were based

- 54) A list of all documents relevant to my decision to which I refer to in my reasons are set out in **Annexure B**.

Findings on material questions of fact

- 55) In deciding whether to approve the proposed action, I considered all impacts that the proposed action would have or would likely have on each matter protected by the controlling provisions for the proposed action (being sections 18 and 18A, and 24D and 24E of the EPBC Act).

Listed threatened species and ecological communities (sections 18 and 18A)

- 56) In making my decision, I considered the impact of the proposed action on each of the following listed threatened species and ecological communities:
- a) Brigalow (*Acacia harpophylla* dominant and co-dominant) – Endangered
 - b) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (*Phascolarctos cinereus*) – Endangered
 - c) Greater glider (southern and central) (*Petauroides volans*) – Endangered
 - d) Squatter Pigeon (Southern) (*Geophaps scripta scripta*) – vulnerable
 - e) Ornamental Snake (*Denisonia maculata*) – vulnerable
 - f) King Blue-grass (*Dichanthium queenslandicum*) – endangered
 - g) Other listed threatened species and threatened ecological communities

Brigalow (*Acacia harpophylla* dominant and co-dominant) - Endangered

Description

- 57) I noted that the Brigalow (*Acacia harpophylla* dominant and co-dominant) threatened ecological community (**Brigalow TEC**) has been listed as endangered since 4 April 2001. The *Approved Conservation Advice for the Brigalow (*Acacia harpophylla* dominant and co-dominant) ecological community (Brigalow Conservation Advice)* has been in effect from 17 December 2013.
- 58) I noted that the Brigalow TEC is characterised by the presence of Brigalow (*Acacia harpophylla*) as one of the three most abundant tree species, and is dominant or co-dominant with *Casuarina crista*, other species of *Acacia*, or species of *Eucalyptus*. The vegetation structure ranges from open forest to open woodland with a prominent shrub layer and has a varying tree layer from approximately 9 m to approximately 25 m depending on the average area rainfall (Brigalow Conservation Advice). I was directed to the Special Profiles and Threats (SPRAT) database for further information about the Brigalow TEC.
- 59) I noted that the Brigalow TEC was listed as endangered on the basis that it had undergone extensive clearing. The Brigalow Conservation Advice states that the key threats to Brigalow TEC include factors that may reduce its extent or cause a decline in condition, including clearing, habitat fragmentation, and introduced plant and animal pest species.
- 60) I noted that the Brigalow Conservation Advice states that the primary conservation and management actions are to:

- a) Establish condition benchmarks across the range of Brigalow TEC, for each component vegetation communities;
 - b) Survey and continue to monitor a representative set of sites in Queensland and New South Wales to assess condition and to identify relevant threats;
 - c) Identify, prioritise and map important areas for Brigalow TEC conservation in Queensland and New South Wales;
 - d) Investigate methods to assist advanced regrowth to attain the structural and floristic characteristics of remnant Brigalow TEC; and
 - e) Undertake monitoring to ensure and encourage compliance with legislation that protects Brigalow TEC.
- 61) The areas considered critical to the survival of the Brigalow TEC includes all patches that meet the key diagnostic characteristics and condition thresholds for the ecological community.

Project area

- 62) I noted that the PER states that the project area was surveyed in 2019 and 2020, during mid to late wet season, using the Regional Ecosystem (RE) verification methodologies and the BioCondition assessment methodology. A total of 51 BioCondition assessments were undertaken within 20 assessment units within the disturbance footprint. Weed cover is used as an attribute to determine the condition of Brigalow TEC patches.
- 63) I noted the PER states that the disturbance footprint contains approximately 71.2 ha of Brigalow TEC (67.2 ha of remnant and the remainder is regrowth older than 15 years) that meets the key diagnostic criteria in the Brigalow Conservation Advice, considering patch size and weed dominance of the patches. An additional 47.8 ha of Brigalow TEC is located within 500 m of the disturbance footprint boundary.
- 64) The department's Protected Matters Search Tool report showed that Brigalow TEC was known and likely within a 10 km radius of the project area. However, the known and likely ranges of the Brigalow TEC were mainly to the north, east, and south of the project area, and did not occur immediately to the west of the project area. As mentioned above, 71.2 ha of Brigalow TEC also occurs within the disturbance footprint.

Impact assessment

- 65) I noted that the PER states that 71.2 ha of Brigalow TEC (67.2 ha of remnant vegetation with the remainder as regrowth), will be directly impacted as a result of the open-cut mining of the proposed action by habitat removal over a period of 3 years. The department and I agreed with this assessment and considered this to be habitat critical to the survival of an ecological community.
- 66) I noted that the PER also states that the Brigalow TEC may be directly impacted by the incursion of invasive weeds and increased risk of fire as a result of the proposed action.
- 67) I noted that the PER states that an additional 47.8 ha of the Brigalow TEC located within 500 m of the project's footprint boundary will be indirectly and temporarily impacted by dust as result of the construction and operation of the proposed action. Dust impact is anticipated to last for approximately 3 years.

- 68) The department and I agreed with the assessment of impacts outlined above.
- 69) I noted that the PER states that, having considered the significant impact criteria for an endangered ecological community, the proposed action is likely to result in a significant impact to the Brigalow TEC due to reduction in extent of an ecological community. The department and I agreed with this conclusion but also noted that it adversely affects habitat critical to the survival of an ecological community.

Avoidance, mitigation and management measures

- 70) I noted that the PER identified the following mitigation measures relevant to the Brigalow TEC that are detailed in the PER, Progressive Rehabilitation and Closure Plan (PRCP) and EMP:
- a) Weeds:
 - i) Ensure vehicles entering undisturbed parts of the site to be certified weed-free;
 - ii) Inspect areas after heavy rainfall to identify weed infestations and monitor stockpiles annually. Implement control measures accordingly; and
 - iii) Conduct in-depth weed milestone monitoring every 2 years, including a survey report.
 - b) Dust:
 - i) Cover loads prior to transport;
 - ii) Use of watering trucks on haul roads when dust limits set out in the EA are reached; and
 - iii) Prioritise dust producing activities on still days following rainfall.
 - c) Fire:
 - i) Implement standard mining fire safety and smoking protocols and procedures; and
 - ii) Maintain a fire break during rehabilitation.
- 71) I noted that the PER states that rehabilitation planning has considered the needs of the Brigalow TEC as detailed in milestone 7 – establishment of target vegetation in non-riparian areas, milestone 8 – establishment of target vegetation in riparian areas and milestone 9 – achievement of native ecosystem and use with stable condition. I noted that the PER states that RE 11.4.8 is included in rehabilitation areas to be reinstated to their initial classification in the PRCP prescribed under the Queensland EA. I noted that RE 11.4.8 is considered to be Brigalow TEC where it meets the key diagnostic criteria in the Brigalow Conservation Advice.
- 72) I noted that the department had undertaken an adequacy review of the EMP and OMP and provided feedback to the proponent to increase the management and offset commitments to ensure better environmental outcomes for Brigalow TEC. The department recommended, and I agreed, to approve the revised EMP and OMP as part of the approval decision.

Residual Impacts and offsets

- 73) I noted that the OMP contains habitat quality scores for protected matters that are not the department's recommended scoring approach in relation to offset calculations. The department undertook an assessment of the proponent's habitat quality scores and I

considered that the approach taken in the OMP is adequate for determining habitat quality scores and is consistent with the departments offset policy for protected matters for the purposes of determining offsets.

- 74) Based on the nature and scale of the impacts, and after the implementation of proposed avoidance, mitigation and management measures, I considered that the proposed action will have a residual significant impact on the Brigalow TEC. With consideration of the EPBC Act Policy Statement 1.1 Significant Impact Guidelines, the proponent considered that the clearance of 71.2 ha of the ecological community constitutes a significant impact to the Brigalow TEC due to reduction in extent of an ecological community. I agreed with this conclusion, but also considered this is habitat critical to the survival of the ecological community.
- 75) To minimise the proposed action impacts on the Brigalow TEC, the department recommended, and I agreed to impose, the inclusion of conditions that limit the action to the bounds of the project area (condition 1a), restricts clearance to the disturbance footprint (condition 1b) and restricts clearance to no more than 71.2 ha of Brigalow TEC (condition 2).
- 76) I noted that the proponent developed an OMP to compensate for residual significant impacts on the Brigalow TEC of 71.2 ha. The total land proposed for offset is 241.3 ha (107.46% of impact offset).
- 77) The department recommended, and I agreed to impose, the inclusion of a condition that requires the proponent to implement the approved OMP no later than the commencement of the action and to continue to implement the OMP at least until the expiry date of this approval (condition 32). The department also recommended, and I agreed to impose, the inclusion of conditions to ensure outcomes specified in the OMP are tracked and achieved.
- 78) The conditions of approval are set out in Annexure A of the Notification of approval decision.

Precautionary Principle

- 79) The department considered whether the precautionary principle applies to Brigalow TEC. The department did not consider that the precautionary principle applies because the department considered that there is not a lack of scientific certainty concerning the potential impacts of the proposed action on the Brigalow TEC. I agreed with the department's conclusion on the precautionary principle for the Brigalow TEC.

Conclusion

- 80) Based on the proposed measures to avoid, mitigate, manage and offset impacts, and assuming compliance with the recommended conditions of approval, the department concluded, and I agreed, that the proposed action will not have an unacceptable impact on the Brigalow TEC.

Conservation Advice, Recovery Plan and Threat Abatement Plans

- 81) I had regard to the Brigalow Conservation Advice in making my decision.
- 82) I noted that there is no Recovery Plan for this threatened ecological community.
- 83) I noted that the *Threat Abatement Plan for the biological effects, including lethal toxic ingestion, caused by cane toads (2011)* is relevant to the Brigalow TEC. I considered that my decision is not inconsistent with any relevant threat abatement plan for the Brigalow TEC.

Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (Phascolarctos cinereus) - Endangered

Description

- 84) I noted that the Koala has been listed as endangered since 12 February 2022. The *Approved Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory (Koala Conservation Advice)* has been in effect from 12 February 2022. The *National Recovery Plan for the Koala Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory) (Koala Recovery Plan)* came into effect on 8 April 2022. I was directed to the SPRAT database for further information about the Koala.
- 85) I noted that the Koala is typically found in Australian forests and woodlands of predominantly Eucalyptus species. The Koala has a wide but patchy distribution across the coastal and inland areas of Queensland.
- 86) I noted that the range of the Koala is limited by specialist food, habitat and environmental requirements. The Koala's home range is highly variable and dependant on multiple factors, including life history stage, soil fertility, habitat quality and nutritional requirements. In fragmented and agricultural landscapes, scattered paddock trees have been found to be disproportionately important to local Koala populations, with riparian vegetation facilitating local movement and being crucial in long-distance dispersal. Koalas are recorded to disperse up to 20 km from their natal areas. A decrease in connectivity can precipitate local population extinction in fragmented landscapes.
- 87) I noted that climate refugia such as drainage lines, riparian zones and patches that are resilient to drying conditions are noted as habitat critical for the Koala over longer time frames. This includes habitat which may be currently unoccupied by Koalas but is available for future recolonisation. Other considerations for habitat critical that may be relevant to the location of the project area include whether the habitat is used during periods of stress (e.g. flood, drought or fire) and whether the habitat is necessary to maintain genetic diversity and long-term evolutionary development (e.g. heat tolerance).
- 88) I noted that the key threatening processes stated in the Koala Conservation Advice include:
- a) Loss of climatically suitable habitat;
 - b) Increased intensity/frequency of drought;
 - c) Increased intensity/frequency of heatwaves;
 - d) Increased intensity/frequency of bushfire;
 - e) Declining nutritional value of foliage;
 - f) Clearing and degradation of Koala habitat;
 - g) Mortality of individuals resulting from vehicle collisions and dogs; and
 - h) Koala retrovirus (KoRV) and Chlamydia (*Chlamydia pecorum*).
- 89) I noted that the Koala Conservation Advice and the Koala Recovery Plan state the conservation and recovery actions for the Koala. Some of these are:

- a) Build and share knowledge by identifying nationally important populations and habitat;
- b) Strengthen community engagement and partnerships by growing partnerships with Indigenous and community groups;
- c) Increase habitat protection by dedication of Crown land and purchasing land identified as priority Koala habitat for incorporation into state protected areas;
- d) Integrate Koala conservation into policy, and statutory and land-use plans;
- e) Strategic habitat restoration by building on and implementing landscape-scale habitat restoration plans; and
- f) Active metapopulation management by developing meaningful and measurable metrics of health, genetics, population and distribution.

Project area

- 90) I noted that the proposed action falls within the Brigalow Belt Koala Management Bioregion. The proposed action project area provides habitat that is dominated by Koala food trees, including *Eucalyptus camaldulensis*, *E. crebra*, *E. exserta*, *E. melanophloia*, *E. orgadophila*, *E. populnea*, *E. tereticornis*, and ancillary habitat trees, including *Acacia harpophylla*, *A. salicina*, *Corymbia citriodora*, *C. dallachiana*, *C. erythrophloia*, *C. intermedia*, *C. tessellaris*, *E. acmenoides*, *E. cambageana*, *E. platyphylla*, *E. thozetiana*, *Melaleuca bracteata* as defined in A Review of Koala Habitat Assessment Criteria and Methods (Youngentob et al., 2021). I noted that the PER states that, due to high habitat connectivity across the region surrounding the project area via extensive tracts of Eucalyptus forests that cover the Cherwell-Harrow Range, survey sightings and the presence of food trees along major watercourses, it is likely that a Koala population exists and occurs regularly or permanently within the project area.
- 91) I noted in the PER that targeted surveys were conducted in 2018 and 2019. Diurnal active searches, spotlighting and habitat (BioCondition) assessments were undertaken, with direct evidence of Koala presence recorded within the project area, involving at least 12 individuals.

Impact assessment

- 92) I noted that the PER states that a total of 1,166.9 ha of koala habitat will be cleared as a result of the proposed action. This includes 938.6 ha of foraging/shelter/dispersal, 45.5 ha of shelter/dispersal and 182.2 ha of dispersal habitat. I noted that the PER states that this is habitat critical to the survival of the species (habitat used for feeding and resting).
- 93) I noted, as defined in section 5.6.2.7 of the PER, the following habitat types occur in the project footprint:
 - a) Foraging/shelter/dispersal: areas containing RE's 11.10.1 (*Corymbia aureola* and *Eucalyptus melanophloia* open forest scarps and sandstone tablelands) 11.10.3 and non-remnant 11.10.3 (*Acacia shirleyi* open forest on coarse-grained sedimentary rocks), 11.10.7 (*Eucalyptus crebra* woodland on coarse-grained sedimentary rocks), 11.3.2 (*Eucalyptus populnea* woodland on alluvial plains), 11.3.25 (*Eucalyptus camaldulensis* forest fringing drainage line) 11.5.3 and non remnant 11.5.3 (*Eucalyptus populnea* woodland on Cainozoic sand plains and/or remnant surfaces.) 11.5.9 and non-remnant 11.5.9 (*Eucalyptus crebra* and other *Eucalyptus* spp. and *Corymbia* spp. woodland on Cainozoic sand plains and/or remnant surfaces).

- b) Shelter/dispersal: areas containing RE's 11.9.2, and non-remnant 11.9.2 (*Corymbia* spp. Woodland on alluvial plains), 11.4.9 (*Acacia harpophylla* shrubby woodland with *Terminalia oblongata* on Cainozoic clay plains), 11.10.1 (*Corymbia citriodora* woodland on coarse-grained sedimentary rocks) and 11.4.8 and non-remnant 11.4.8 (*Eucalyptus cambageana* woodland to open forest with *Acacia harpophylla* on Cainozoic clay plains, no food trees present).
 - c) Dispersal: habitat between foraging areas without barriers, i.e. areas of foraging habitat less than 4 km apart with little to no resources for the species.
 - d) Non-habitat: areas which contain little to no resources for the species. Also includes areas that would be considered dispersal habitat but have corridors of mapped shelter or foraging habitat intersecting that would be the preferred dispersal pathway.
- 94) The department and I agreed with these habitat definitions.
- 95) I noted that the PER notes impacts to the Koala as a result of fragmentation are anticipated to last for a maximum of 9 years. The department considered, and I agreed, that the impacts of fragmentation resulting from the proposed action are likely to occur for much longer, and up to duration of the approval of over 30 years (to 2055), to allow time for rehabilitation and regrowth of foraging, shelter and dispersal habitat.
- 96) I noted that the PER states that an additional 2,110.9 ha of Koala habitat is located within 500 m of the project's footprint boundary. This habitat may be directly impacted by noise and vibration during construction and operation of the proposed action, and indirectly impacted by dust and lighting as result of the construction and operation of the proposed action.
- 97) I noted that the PER notes indirect impacts to the Koala from dust, lighting and noise impacts are anticipated to last for approximately 9 years.
- 98) I noted that the PER states that direct impacts to the Koala from the proposed action include:
- a) Mortality from fire burns;
 - b) Behavioural changes resulting from blasting;
 - c) Habitat clearance and degradation;
 - d) Loss of climatically suitable habitat;
 - e) Mortality from vehicles strikes and dogs;
 - f) Noise and vibration impact generally and from blasting;
 - g) Groundwater drawdown; and
 - h) Surface water contamination.
- 99) I noted that the PER states the following additional indirect impacts to the Koala are likely to occur as a result of the proposed action:
- a) Fire leading to a loss of foraging and shelter habitat;
 - b) Edge effects;
 - c) Risk of unsuccessful rehabilitation;
 - d) Climate change;

- e) Increased intensity or frequency of drought;
- f) Increased intensity or frequency of heatwaves;
- g) Groundwater drawdown;
- h) Groundwater contamination;
- i) Surface water contamination; and
- j) Waste.

100) The department and I agreed with the aforementioned characterisation of impacts.

101) I noted that the PER states that, having considered the significant impact criteria for an endangered species, the proposed action is likely to result in a significant impact to the Koala due to adversely affecting habitat critical to the survival of the species. The department and I agreed with this conclusion.

Avoidance, mitigation and management measures

102) I noted that the PER identified that areas of the project footprint have been adjusted to avoid the clearing of riparian Koala habitat and reduce fragmentation and loss of connectivity.

103) I noted that the PER identified the following mitigation measures relevant to the Koala that are detailed in the PER, PRCP, REMP and EMP:

- a) Restore habitat values for Koala (as well as for Squatter pigeon, and Greater glider) by seed application, topsoil preservation as post-mining growing medium and with regular monitoring;
- b) Progressive clearing to allow any Koalas to leave the clearance area;
- c) Preclearance surveys;
- d) Impose on-site speed limits to reduce vehicle collisions with Koalas;
- e) Employ 'aeroscreen' type and 'low glare' streetlights and position them as horizontally as possible while angling away from habitats to reduce impact from artificial light;
- f) Blasting conducted in accordance with prescribed limits;
- g) Implement a Groundwater Management and Monitoring Program; and
- h) Undertake surface water mitigation measures.

104) I noted that the PER states that rehabilitation planning has considered the needs of the Koala with respect to establishing vegetation in non-riparian areas that includes Koala food trees of sufficient relative dominant and height, and that weed, dust and fire impacts will be managed.

105) I noted that the department had undertaken an adequacy review of the EMP and OMP and provided feedback to the proponent to increase the management and offset commitments to ensure better environmental outcomes for Koala. I approved the revised EMP and OMP as part of the approval decision.

Residual Impacts and offsets

- 106) I noted that the OMP contains habitat quality scores for protected matters that are not the department's recommended scoring approach in relation to offset calculations. The department undertook an assessment of the proponent's habitat quality scores and I considered that the approach taken in the OMP is adequate for determining habitat quality scores and consistent with the departments offset policy for protected matters for the purposes of determining offsets.
- 107) Based on the nature and scale of the impacts, and after the implementation of proposed avoidance, mitigation and management measures, the department considered, and I agreed, that the proposed action will have a residual significant impact on the Koala. With consideration of the EPBC Act Policy Statement 1.1 Significant Impact Guidelines, the department considered, and I agreed, that the clearance of 1,166.9 ha of habitat critical to the survival of the Koala constitutes a significant impact to the Koala.
- 108) To minimise the impacts of the proposed action on the Koala, the department recommended, and I agreed with, the inclusion of conditions that limits the action to the bounds of the project area (condition 1a), restricts clearance to the disturbance footprint (condition 1b) and restricts clearance to no more than 1,166.9 ha of Koala habitat (condition 2b).
- 109) I noted that the proponent has developed an OMP to compensate for residual significant impacts on the Koala. The total land proposed for Koala offsets is 7, 906.65 ha (including foraging shelter and dispersal habitat of 7, 360.16 ha, shelter and dispersal habitat of 185.64 ha, and dispersal habitat of 360.85 ha) which achieves an offset of 144.86% of the impact. Details of the measures to achieve a conservation gain for the Koala are outlined in the OMP. The department also recommended, and I imposed, the inclusion of conditions to ensure outcomes specified in the OMP are tracked and achieved (conditions 34-35).
- 110) The department recommended, with which I agreed, and imposed, the inclusion of a condition that requires the proponent to implement the OMP no later than at commencement of the action and for the duration of the approval (condition 32).
- 111) The conditions of approval are set out in Annexure A of the Notification of approval decision.

Precautionary Principle

- 112) The department has considered whether the precautionary principle applies to the Koala in relation to the proposed action. The department considered, and I agreed, that the precautionary principle does not apply because it is considered there is not a lack of scientific certainty concerning the potential impacts of the proposed action on the Koala.

Conclusion

- 113) Based on the proposed measures to avoid, mitigate, manage and offset impacts, and assuming compliance with the recommended conditions of approval, the department considered, and I agreed, that the proposed action will not have an unacceptable impact on the Koala.

Conservation Advice, Recovery Plan and Threat Abatement Plans

- 114) I had regard to the Koala Conservation Advice in making my decision.
- 115) I noted that the Koala Recovery Plan outlines the conservation framework for this species' recovery, with the goal to stop the trend of decline in population size of the listed Koala. The

department considered that relevant strategies and actions in the recovery plan include building and sharing knowledge, increasing the area of protected habitat for the listed Koala and strategically restoring listed Koala habitat.

116) I considered that, based on the nature of the impacts of the proposed action, the conditions I have attached to this approval and other management documents prepared by the proponent, the action will not be inconsistent with the Koala Recovery Plan.

117) I noted that there is no Threat Abatement Plan relevant to the Koala.

Greater glider (southern and central) (Petauroides volans) - Endangered

Description

118) I noted that the Greater glider has been listed as endangered since 5 July 2022. The *Approved Conservation Advice for Petauroides volans* (Greater glider (southern and central)) (**Greater Glider Conservation Advice**) has been in effect from 5 July 2022. I was directed to the SPRAT database for further information about the Greater glider.

119) The Greater glider is an arboreal marsupial, predominantly solitary and largely restricted to Eucalyptus forests and woodlands of eastern Australia. I noted that the Greater Glider Conservation Advice states that the Greater glider is typically found in highest abundance in taller, montane, moist Eucalyptus forests on fertile soils, with relatively old trees and abundant hollows.

120) I noted that the Greater glider Conservation Advice states that Greater gliders shelter in tree hollows during the day, with a preference for large hollows with a diameter greater than 10 centimetres (cm) in large old trees. Multiple dens are used by an individual within their home range. The size and age of trees with suitable hollows depends on tree species and climate.

121) Home ranges for the Greater glider are typically small, between 1 and 4 ha but can be up to 19 ha in forests on less fertile sites and in more open woodlands. I noted that the Greater Glider Conservation Advice states that the Greater glider is particularly sensitive to fragmentation of forest habitat as they do not readily recolonise isolated sites from which they have been lost.

122) I noted that the key threats to the Greater glider described in the Greater Glider Conservation Advice include habitat loss, disturbance and modification of habitat, climate change, hyper-predation and competition from over-abundant native species, and predation due to introduced species, such as Feral cat and European red fox.

123) I noted that the Greater glider Conservation Advice describes habitat critical to the survival for the Greater glider. Habitat that may be of relevance to this region include:

- a) Large contiguous areas of eucalypt forest which contain hollow-bearing trees and a diverse range of the species preferred food species in a particular region;
- b) Smaller or fragmented habitat patches connected to larger patches of habitat that facilitate dispersal or enable recolonisation; and
- c) Short-term or long-term post-fire refuges that allow the species to persist, recover and recolonise burnt areas.

124) Relevant conservation actions for the Greater glider are summarised below under their related threats:

- a) Habitat loss, disturbance and modification:
 - i) Ensure that eucalypts forests and the impacts of disturbance are managed to prevent them from transitioning to less nutritious, hotter and/or more fire-prone plant communities;
 - ii) Protecting any unburnt habitat to support population recovery;
 - iii) Protect and maintain sufficient areas of suitable habitat;
 - iv) Restore habitat connectivity; and
 - v) Avoid the use of barbed wire.
- b) Climate change:
 - i) Protect all habitat likely to be climate change refuges; and
 - ii) Undertake habitat restoration to improve micro-climate conditions in areas at high risk of extreme temperatures and drought.
- c) Invasive species:
 - i) Implement appropriate control actions; and
 - ii) Develop and implement longer-term strategies to control predation by the European red fox and Feral cat.
- d) Ex-situ recovery:
 - i) Investigate the feasibility of reintroductions to areas from where the species has recently been extirpated.

Project area

125) I noted that the PER states that, due to survey sightings mainly in riparian environments within the survey area, it is likely that a Greater glider population exists and occurs regularly or permanently within the project area.

126) I noted that the PER uses the following definitions to determine Greater glider habitat:

- a) Dispersal habitat: areas with trees (that do not qualify as foraging or denning) which provide connectivity to isolated patches of denning habitat.
- b) Foraging habitat: areas containing locally important dominant/co-dominant trees for foraging within 200 m of denning habitat.
- c) Potential/future denning habitat: areas containing appropriate trees with a diameter at breast height greater than 30 cm, but less than the RE threshold for large trees.
- d) Likely/current denning habitat: areas containing appropriate trees (*Eucalyptus*, *Corymbia*, *Angophora*) with a diameter at breast height greater than the RE threshold for large trees generally > 40 cm.

127) The department and I agreed with the definitions of the Greater glider habitat provided in the PER.

- 128) I noted that the PER states that all Greater glider habitat to be cleared for the proposed action (totalling 1,056.8 ha) is considered habitat critical to the survival of the Greater glider. The department and I agreed with this.
- 129) I noted that the PER states that targeted Greater glider surveys were conducted in 2018 and 2019 with direct evidence of Greater glider presence recorded within the project area. Surveys were undertaken in all patches of Greater glider habitat within the project area:
- a) Spotlighting for at least 40 person-minutes at 28 sites; and
 - b) Habitat assessment via BioCondition Assessment.
- 130) I noted that the Terrestrial ecology report states that a total of 20 Greater gliders were recorded within the survey area with most of these occurring in the riparian forest along watercourses. The PER states that, due to survey sightings mainly in riparian environments within the survey area, it is likely that a Greater glider population exists and occurs regularly or permanently within the project area.
- 131) I noted that the Terrestrial ecology report also provided results of predictive modelling which categorised habitat as high value (7.7 ha, with 2-4 individuals/km), moderate value (53.7 ha, 1-2 individuals/km) and low value (163.7 ha, 0-1 individuals/km). Much of this modelled area has been avoided. The department noted this information, but the department did not consider this modelling to be suitable to map Greater glider habitat and has not been used in the determination of significant impacts. I agreed with the department.
- 132) I noted that the surveys undertaken by the proponent did not include transects as stated in the Survey Guidelines for Australia's Threatened Mammals (2011). Although the requirements set out in the survey guidelines were only partially met, I considered that the proponent has taken a conservative approach to habitat mapping for the species, and as such, I decided that the survey effort is adequate.

Impact assessment

- 133) I noted that the PER states that 1,056.8 ha of habitat (as per above habitat definitions) for the Greater glider will be cleared as a result of the proposed action. This includes:
- a) 750 ha or likely/current denning habitat;
 - b) 234.6 ha of future denning habitat;
 - c) 19.3 ha of foraging habitat; and
 - d) 52.9 ha of dispersal habitat.
- 134) I noted that the PER states that an additional 2,209.77 ha of Greater glider habitat is located within 500 m of the project's disturbance footprint will be indirectly impacted as result of the construction and operation of the proposed action. The PER states that dust, lighting and noise impacts are anticipated to last for approximately 8 years and impacts from fragmentation are anticipated to last for a maximum of 8 years. The department considered, and I agreed, that the impacts of fragmentation resulting from the proposed action are likely to occur for much longer, and up to duration of the approval of over 30 years (to 2055), to allow time for rehabilitation and regrowth of foraging and denning habitat.

- 135) I noted that the PER states that direct impacts to the Greater glider from the proposed action include:
- a) Mortality from fire and barbed wire entanglement;
 - b) Behavioural changes including site alienation resulting in fauna avoiding the project area;
 - c) Loss of trees that may produce hollows in the future;
 - d) Habitat clearance;
 - e) Loss of climatically suitable habitat;
 - f) Mortality with vehicles and dogs encountered;
 - g) Groundwater drawdown; and
 - h) Surface water contamination.
- 136) The department considered, and I agreed, that the potential indirect impacts to the Greater glider are similar to those described in relation to the Koala above but may be more severe due to the gliding requirements of Greater gliders.
- 137) The department and I agreed with the aforementioned characterisation of impacts.
- 138) I noted that the PER states that, having considered the significant impact criteria for an endangered species, the proposed action is likely to result in a residual significant impact to the Greater glider. The department and I agreed with this conclusion.

Avoidance, mitigation and management measures

- 139) I noted that the PER states that, in consultation with Department of Environment, Science and Innovation (DESI), the project footprint has been reduced by 250 ha to avoid environmental values by retaining connectivity with surrounding habitat areas and upholding continuity of surface water features. This included large corridors to minimise impacts to watercourses, specifically avoiding a tributary of Plumtree Creek and Hughes Creek and tributary that contain hollow bearing trees in areas of Greater glider denning habitat for the Greater glider and Koala. This also reduces excessive habitat fragmentation and retains some connectivity. I noted that the project area is bounded by Saraji Road and existing mining developments to the east, and the only likely dispersal corridors for Greater glider from the project area are to the west.
- 140) The following mitigation measures relevant to the Greater glider that are detailed in the PER, PRCP, REMP and EMP include:
- a) Restore habitat values by seed application using Greater glider food species, topsoil preservation as post-mining growing medium and regular monitoring including species richness of Greater glider food trees;
 - b) Progressive clearing to allow individuals in the project footprint to escape;
 - c) Preclearance surveys including for habitat features such as hollow-bearing trees which will be relocated/salvaged to use in rehabilitation areas if suitable;
 - d) Impose on-site speed limits;

- e) Employ 'aeroscreen' type and 'low glare' streetlights and position them as horizontally as possible while angling away from habitats to reduce impacts of artificial lighting on threatened fauna;
- f) Blasting conducted in accordance with prescribed limits;
- g) Fences will be altered in dispersal corridors and barbed wire replaced with smooth wire to prevent entanglement;
- h) Implement fire management to avoid and reduce the risks of uncontrolled fire event occurring in the project area;
- i) Implement Groundwater Management and Monitoring Program; and
- j) Surface water mitigation measures.

141) I noted that the PER states that rehabilitation planning has considered the needs of the Greater glider including seeding of suitable tree species, reinstating a spatial arrangement of RE's as native ecosystems, and monitoring of species richness of Greater glider food trees to achieve stated milestones. I noted that the PER also details weed, dust and fire impacts will be managed (See paragraph 91).

142) I noted that the department had undertaken an adequacy review of the EMP and OMP and provided feedback to the proponent to increase the management and offset commitments to ensure better environmental outcomes for Greater glider. The department recommended approval of, the revised EMP and OMP as part of my approval decision, which I approved.

Residual Impacts and offsets

143) I noted that the OMP contains habitat quality scores for protected matters that are not the department's recommended scoring approach in relation to offset calculations. The department undertook an assessment of the habitat quality scores and I considered that the approach taken in the OMP is adequate for determining habitat quality scores and is consistent with the department's offset policy for protected matters for the purposes of determining offsets.

144) Based on the nature and scale of the impacts, and after the implementation of proposed avoidance, mitigation and management measures, I considered the proposed action will have a residual significant impact on the Greater glider. With consideration of the EPBC Act Policy Statement 1.1 Significant Impact Guidelines, I considered that the clearance of 1,056.84 ha of habitat critical to the survival of the Greater glider constitutes a significant residual impact to the Greater glider.

145) I noted that the PER proposes to implement direct, land-based offsets to compensate for the residual significant impact to the Greater glider from the loss of 1,056.84 ha of Greater glider habitat. The total land proposed for offset is 6,038.45 ha. Management measures proposed in the offset management plan to improve habitat quality and species stocking rate for Greater glider include removal of all barbed wire, installation of nest boxes, reduction in pests (including dogs, cats and foxes) and weeds, enhancement planting in non-remnant brigalow if natural recruitment is insufficient, improvement of Poplar Box grassy woodland (RE 11.3.2) and fire management.

- 146) I noted that the OMP states that revised offset scoring method in the EPBC calculator achieves at least 100% impact offset score for Greater glider. It is also noted that the impact offset score is calculated separately for current/likely denning habitat (117.5%), potential/future habitat (86.02%) and foraging habitat (124.63%) in the Offset Habitat Quality Report. Considered together, these achieve over 100% impact offset which is weighted towards current/likely denning habitat. The department considered, and I agreed, that this meets the offset requirements for Greater glider.
- 147) To minimise the impacts on the Greater glider, the department recommended, and I have imposed, the inclusion of conditions that limit the action to the bounds of the project area (condition 1a), restricts clearance to the disturbance footprint (condition 1b) and restricts clearance to no more than 1,056.84 ha of Greater glider habitat (condition 2c).
- 148) To ensure the proponent's proposed avoidance and mitigation measures are enforced, the department recommended, and I have imposed, the inclusion of conditions requiring the proponent to implement their approved EMP for the duration of the approval (conditions 10-11).
- 149) The proponent has developed an OMP to compensate for residual significant impacts on the Greater glider which I have approved. The department recommended, and I have imposed, the inclusion of a condition that requires the proponent to implement the OMP no later than the commencement of the proposed action and for the duration of the approval. The department also recommended, and I have imposed, the inclusion of conditions to ensure outcomes specified in the OMP are tracked and achieved (conditions 32-35).
- 150) I noted that to offset the loss of natural Greater glider denning habitat due to the proposed action, the proponent has committed to installation of 400 nest boxes in the OMP, 200 prior to commencement of the action, and a further 200 no later than 10 years after commencement to allow time for trees to reach suitable size. I noted that this commitment does not provide adequate information to ensure that these 400 nest boxes will provide suitable denning habitat. The department therefore recommended, and I included, conditions to submit a Greater Glider Artificial Hollows Management and Monitoring Plan (GGAHMMP) for approval within six months of decision on whether to approve the action and to implement the approved GGAHMMP until the expiry date of the approval. The department also recommended, and I imposed, a condition that the approval holder must not commence construction of the coal handling and processing plant unless the GGAHMMP has been approved by the Minister in writing (conditions 28-29).
- 151) To ensure that monitoring of the offset site, specifically with regards to commitments in the OMP to monitor species stocking rates, the department recommended, and I imposed, a condition that a Species Stocking Rate Survey and Monitoring Plan also be required, with similar conditions to paragraph 154) above (conditions 30-31).
- 152) The department also recommended, and I imposed, the inclusion of standard administrative conditions that align with department policy on condition setting for approval decisions (condition 36 to 72).
- 153) The conditions of approval are set out in Annexure A of the Notification of approval decision.

Precautionary Principle

154) I have considered whether the precautionary principle applies to the Greater glider in relation to the proposed action. I considered that the precautionary principle does not apply because there is not a lack of scientific certainty concerning the potential impacts of the proposed action on the Greater glider.

Conclusion

155) Based on the proposed measures to avoid, mitigate, manage and offset impacts, and assuming compliance with the recommended conditions of approval, I concluded that the proposed action will not have an unacceptable impact on the Greater glider.

Conservation Advice, Recovery Plan and Threat Abatement Plans

156) I had regard to the Greater Glider Conservation Advice in making my decision.

157) I noted that there is no Recovery Plan for the Greater glider.

158) I noted that there is no relevant Threat Abatement Plan relevant to the Greater glider.

Squatter pigeon (southern) (Geophaps scripta scripta) - Vulnerable*Description*

159) I noted that the Squatter pigeon has been listed as vulnerable since 16 July 2000. The *Approved Conservation Advice Geophaps scripta scripta Squatter pigeon (southern) (Squatter Pigeon Conservation Advice)* has been in effect from 27 October 2015. I was directed to the SPRAT database for further information about the Squatter pigeon.

160) The Squatter pigeon is a medium-sized, ground-dwelling bird. Its current distribution extends from Burdekin-Lynd Divide in central Queensland, west to Longreach and Charleville, east to the coast between Post Curtis and Proserpine, and south to New South Wales (Squatter Pigeon Conservation Advice).

161) I noted that the Squatter pigeon inhabits the grassy understorey of open eucalypt woodland, and less often savannas (Squatter Pigeon Conservation Advice). It is nearly always found near permanent water such as rivers, creeks and waterholes. Its movements are poorly known, but it appears to be locally dispersive or resident, with no long-distance seasonal movement recorded.

162) I noted that the threats to the Squatter pigeon are described in the Squatter pigeon Conservation Advice. In summary, threats include:

- a) Ongoing vegetation clearance and fragmentation;
- b) Overgrazing of habitat by livestock and feral herbivore such as rabbits;
- c) Introduction of weeds;
- d) Inappropriate fire regimes;
- e) Thickening of understorey vegetation;
- f) Predation by feral cats and foxes;

- g) Trampling of nests by domestic stock; and
- h) Illegal shooting.

163) I noted that the Squatter Pigeon Conservation Advice states the conservation actions for the Squatter pigeon. Some of these are:

- a) Identify sub-populations of high conservation priority, especially in the southern part of the Squatter pigeon's range;
- b) Protect and rehabilitate areas of vegetation that support important sub-populations;
- c) Develop and implement a stock management plan for key sites; and
- d) Monitor selected sub-populations throughout the distribution of the subspecies to identify rates of population change.

Project area

164) I noted that the PER states that the project area provides habitat that is dominated by suitable foraging and/or breeding habitat that comprises areas of remnant and regrowth *Eucalyptus*, *Corymbia* and *Acacia* woodland and open forest with suitable ground cover within 3 km of a suitable seasonal or permanent water source. I noted that the PER states that, due to the presence of suitable habitats in the survey area, it is likely that a Squatter pigeon population exists and occurs regularly or permanently within the project area.

165) I noted that the PER uses the following definitions to determine Squatter pigeon habitat:

- a) Breeding habitat: any remnant or regrowth open-forest to sparse, open-woodland or scrub dominated by *Eucalyptus*, *Corymbia*, *Acacia* or *Callitris* species, on sandy or gravelly soils (including but not limited to areas mapped as Queensland land zones 3, 5 or 7) and within 1 kilometre of a suitable, permanent or seasonal waterbody.
- b) Foraging habitat: any remnant or regrowth open-forest to sparse, open-woodland or scrub dominated by *Eucalyptus*, *Corymbia*, *Acacia* or *Callitris* species, on sandy or gravelly soils (including but not limited to areas mapped as Queensland land zones 3, 5 or 7) and within 3 kilometres of a suitable, permanent or seasonal waterbody.
- c) Dispersal habitat: any forest or woodland occurring between patches of foraging or breeding habitat that facilitates movement between patches of foraging habitat, breeding habitat and/or waterbodies, and areas of cleared land less than 100 metres wide linking areas of suitable breeding and/or foraging habitat.

166) I noted that the PER states any parts of the land zone 3 (sandy alluvium) or 5 (sandy plain), and any remnant or former RE 11.10.7 that qualified as 'sparse' vegetation according to the National Forest and Sparse Woody Vegetation Data (2020) to be Squatter pigeon foraging and/or breeding habitat. Any vegetation located outside of bare patches that were not foraging habitat is mapped as dispersal habitat.

167) The department and I agreed with the above habitat definitions for the Squatter pigeon.

168) I noted that the project area contains 372.5 ha of breeding and foraging habitat, 78.9 ha of foraging only habitat and 767.6 ha of dispersal habitat (total 1,219 ha Squatter pigeon habitat).

169) I noted that the PER states that targeted surveys for the Squatter pigeon were conducted in 2018 and 2019. The proponent undertook the following surveys within the project area:

- a) Timed surveys of at least 20 minutes' duration undertaken at 24 sites;
- b) Transect searches and flushing surveys;
- c) Diurnal active search sites; and
- d) Habitat assessment via BioCondition Assessment.

170) I noted that a total of 66 Squatter pigeons were recorded in the survey area during surveys, with 97% of the individuals sighted within 300 m of land zone 3 or 5, and the remainder in areas of RE 11.10.7 located in land zone 10 (sandstone rises and escarpments). There are two Squatter pigeon records in the project area from the Atlas of Living Australia.

Impact assessment

171) I noted that the PER states that 372.5 ha of breeding and foraging, 78.9 ha of foraging only, and 767.6 ha of dispersal only habitat for the Squatter pigeon (total of 1,219 ha) will be cleared as a result of the proposed action.

172) Additionally, I noted that the PER states that a further 2,515.7 ha of Squatter pigeon habitat located outside of the project area and within 500 m of it may experience impacts from lighting, noise and vibration resulting from the proposed action. I noted that the PER states that this impact will persist for maximum 9 years.

173) I noted that the PER states that direct impacts to the Squatter pigeon from the proposed action include:

- a) Mortality from fire;
- b) Behavioural changes including site alienation resulting in fauna avoiding the project area; and
- c) Habitat clearance.

174) The department considered, and I agreed, that the potential indirect impacts to the Squatter pigeon are consistent with those described in relation to the Koala.

175) The department and I agreed with the aforementioned characterisation of impacts.

176) I noted that the PER states that, having considered the significant impact criteria for a vulnerable species, the proposed action is likely to result in a significant impact to the Squatter pigeon. The department and I agreed with this conclusion.

Avoidance, mitigation and management measures

177) I noted that the PER states that the project footprint has been designed to avoid sensitive areas where possible. It also states, that where possible, prior to project approval, infrastructure locations will be selected to minimise fragmentation of habitat and reduced connectivity for protected matter fauna.

178) I noted that the PER identified the following mitigation measures relevant to the Squatter pigeon that are detailed in the PER, PRCP, REMP and EMP:

- a) Restoration of areas with consideration of Squatter pigeon habitat values as part of rehabilitation by seed application, topsoil preservation as post-mining growing medium;
- b) Progressive clearing to allow individuals to leave the project footprint;
- c) Pre-clearance surveys to identify habitat;
- d) Impose on-site speed limits;
- e) Employ 'aeroscreen' type and 'low glare' streetlights and position them as horizontally as possible while angling away from habitats to reduce impacts of artificial lighting on threatened fauna;
- f) Blasting conducted in accordance with prescribed limits;
- g) Management of weeds, dust and fire impacts as detailed in paragraph 70;
- h) Implement Groundwater Management and Monitoring Program; and
- i) Surface water mitigation measures.

179) I noted that the PER states that rehabilitation planning has considered the needs of the Squatter pigeon.

180) I noted that the department had undertaken an adequacy review of the EMP and OMP and provided feedback to the proponent to increase the management and offset commitments to ensure better environmental outcomes for Squatter pigeon. The department recommended approval of the revised EMP and OMP as part of the approval decision, which I approved.

Residual Impacts and offsets/Compensatory measures

181) I noted that the OMP contains habitat quality scores for protected matters that are not the department's recommended scoring approach in relation to offset calculations. The department undertook an assessment of the habitat quality scores and I considered that the approach taken in the OMP is adequate for determining habitat quality scores and is consistent with the departments offset policy for protected matters for the purposes of determining offsets.

182) Based on the nature and scale of the impacts, and after the implementation of proposed avoidance, mitigation and management measures, the department considered, and I agreed, that the proposed action will have a residual significant impact on the Squatter pigeon. With consideration of the EPBC Act Policy Statement 1.1 Significant Impact Guidelines, I considered that the clearance of 1,219 ha of habitat critical to the survival of the species for the Squatter pigeon constitutes a significant impact to the Squatter pigeon.

183) I noted that the PER proposes a direct, land-based offset to compensate for this residual significant impact on the Squatter pigeon. The total land proposed for offset is 10,714.64 ha. The department noted that this is greater than the total size of the offset areas proposed in the OMP of 8283.25 ha, however given the offset far exceeds the offset liability, the department was satisfied that the offset area is sufficient to meet the offset requirements for Squatter pigeon. I agreed that the offset area proposed in the OMP is sufficient to meet the offset requirements for this species.

Precautionary Principle

184) I have considered whether the precautionary principle applies to Squatter pigeon. I considered that the precautionary principle does not apply because there is not a lack of scientific certainty concerning the potential impacts of the proposed action to the Squatter pigeon.

Conclusion

185) Based on the proposed measures to avoid, mitigate, manage and offset impacts, and assuming compliance with the recommended conditions of approval, I concluded that the proposed action will not have an unacceptable impact on the Squatter pigeon.

Conservation Advice, Recovery Plan and Threat Abatement Plans

186) I had regard to the Squatter Pigeon Conservation Advice in making my decision.

187) I noted that there is no Recovery Plan for this species.

188) I noted that the Threat Abatement Plans relevant to the Squatter pigeon are:

- a) *Threat abatement plan for predation by feral cats (2024)*,
- b) *Threat abatement plan for competition and land degradation by rabbits (2016)*, and
- c) *Threat abatement plan for predation by the European red fox (2008)*.

189) I considered that the proposed action is not inconsistent with any relevant threat abatement plans for the Squatter pigeon.

Ornamental snake (Denisonia maculata) - Vulnerable*Description*

190) I noted that the Ornamental snake has been listed as Vulnerable since July 2000. The *Approved Conservation Advice for Denisonia maculata (Ornamental snake) (Ornamental snake Conservation Advice)* has been in effect from April 2014. I was directed to the SPRAT database for further information about the Ornamental snake.

191) I noted that the Ornamental snake Conservation Advice states that the Ornamental snake is known only from within the drainage system of the Fitzroy and Dawson Rivers in Queensland. Its distribution overlaps with the Brigalow Belt North and parts of the Brigalow Belt South biogeographical regions and is associated with the Brigalow TEC. The Ornamental snake Conservation Advice notes the species distribution is sparse across its range, with the population size unknown.

192) I noted that Ornamental snake Conservation Advice states that the Ornamental snake inhabits floodplains, undulating clay pans and along the margins of swamps, lakes and watercourses. It also occurs on adjoining areas of elevated ground and has been recorded in woodlands and open woodlands, and in fringing vegetation along watercourses. The Survey guidelines for Australia's threatened reptiles and the Draft Referral guidelines for the nationally listed Brigalow Belt reptiles states that important habitat is gilgai depressions or melon-hole country.

193) I noted that The Survey guidelines for Australia's threatened reptiles states that the species is nocturnally active, sheltering during the day under fallen timber and in deep soil cracks. Its diet consists predominantly of frogs, requiring the species to be close to water bodies, including

inundated cracking clay. The species is thought to become inactive during extended dry periods.

- 194) I noted that the species is cryptic, which has contributed to limited knowledge of the species. I noted that the Ornamental Snake Conservation Advice states that it is primarily threatened by the continued legacy of previous broadscale land clearing and habitat modification for agricultural and urban development.

Project area

- 195) I noted that the PER states that there is 109 ha of potential Ornamental snake habitat in the project area and 98.3 ha within the disturbance footprint. Areas which contain patches of clay plain and support remnant and cleared RE's 11.4.8 and 11.4.9 would constitute suitable habitat however these areas are lacking suitable gilgai features to support the food source necessary for the species. I noted that the PER provides evidence outlining the minimum gilgai depth required for each of the local frog species to breed successfully along with survey depths of gulgais demonstrating that the gilgai features in the project area do not support frog populations and therefore are not suitable for Ornamental snake. I agreed, based on this evidence, that there is unlikely to be suitable habitat in the disturbance footprint.
- 196) I noted that the PER states that surveys for the species were undertaken in October and November 2018 and February to May, September and October 2019. Surveys included targeted spotlighting (52.5 person hours), trapping via pitfall (588 trap nights) and funnel (882 trap nights) methods, and opportunistic night searches post rain. These efforts and methods are consistent with the Survey guidelines for Australia's threatened reptile and the Draft Referral guidelines for the nationally listed Brigalow Belt reptiles. I noted that there were no Ornamental Snakes found in the project area.
- 197) I noted that the PER states there are 14 historical records of the species within 10km of the project area, however none within the project area. I noted, as stated in section 5.6.5.3 of the PER, that there are significant dispersal barriers occurring between the known populations and historical records, and the project area.
- 198) I noted that the PER states that given the extremely low density of frogs (primary diet), the marginal quality of habitat and the species not being detected as well as the physical barriers to dispersal and isolation from any known populations, Ornamental snake is unlikely to utilise the project area. I agreed, based on the information provided, that it is unlikely that habitat in the project area would support Ornamental snake.

Impact assessment

- 199) I noted that the PER notes that the Ornamental snake is unlikely to occur within the project area as outlined above.
- 200) The PER states that, having considered the significant impact criteria for a vulnerable species, the proposed action is unlikely to result in a significant impact to the Ornamental snake. I agreed with this conclusion.

Avoidance, mitigation and management measures

- 201) As stated above, the likelihood of the species presence in the project area is low due to marginal quality of habitat, lack of appropriate gilgais and food sources. Additionally, the Ornamental snake is unlikely to disperse into the area from neighbouring populations.
- 202) Although Ornamental snake habitat is unlikely to occur in the Project area as outlined above, I noted that the PER identified avoidance, mitigation and management measures that the department considered, and I agreed, may apply to Ornamental snake including:
- a) Avoidance of area of potential habitat;
 - b) Informing staff of environmental obligations and marking boundaries of areas to be cleared;
 - c) Staged clearing of the project area with the presence of a suitably qualified fauna spotter catcher;
 - d) Surface water management and ESCP to ensure no significant impact on receiving environment;
 - e) Progressive rehabilitation of the disturbance footprint;
 - f) Employ 'aeroscreen' type and 'low glare' streetlights and position them as horizontally as possible while angling away from habitats to reduce impacts of artificial lighting on threatened fauna;
 - g) Blasting conducted in accordance with prescribed limits; and
 - h) Implement fire management to avoid and reduce the risks of uncontrolled fire event occurring in the project area.
- 203) I noted that the department had undertaken an adequacy review of the EMP and provided feedback to the proponent to increase the management commitments to ensure better environmental outcomes for Ornamental snake. The department recommended the approval of the revised EMP as part of the approval decision, which I approved.

Residual Significant Impact

- 204) Based on the nature and scale of the impacts, and after the implementation of proposed avoidance, mitigation and management measures, I considered that the proposed action will not have a residual significant impact on the Ornamental snake. With consideration of the EPBC Act Policy Statement 1.1 Significant Impact Guidelines, I considered the clearance of 98.3 ha of marginal habitat, with no known or likely population of Ornamental snake within the project area or likely to disperse into the project area, does not constitute a significant impact to the Ornamental snake.

Precautionary Principle

- 205) I have considered whether the precautionary principle applies to Ornamental snake. I considered that the precautionary principle does not apply because there is not a lack of scientific certainty concerning the potential impacts of the proposed action to the Ornamental snake.

Conclusion

206) With consideration of the marginality of the habitat, no known or likely population of Ornamental snake within the project area or likely to disperse into the project area, the proposed measures to avoid, mitigate and manage, I concluded that the proposed action will not have an unacceptable impact on the Ornamental snake.

Conservation Advice, Recovery Plan and Threat Abatement Plans

207) I had regard to the Ornamental Snake Conservation Advice in making my decision.

208) I noted that there is no adopted or made Recovery Plan for Ornamental Snake.

209) I noted that no Threat Abatement Plan has been identified as being relevant for this species.

Other listed threatened species and threatened ecological communities

210) During the assessment of the proposed action, the department determined vegetation within the disturbance footprint did not meet the key diagnostic characteristics and condition thresholds for the Poplar Box Grassy Woodland on Alluvial Plains Threatened Ecological Community (Poplar Box TEC) in the Conservation Advice. This was due to the high presence of weeds within the ecological community. I agreed with this assessment.

211) At the completion of the OMP, the proponent noted to the department, the RE 11.3.2. in the offset area may meet the Poplar Box TEC key diagnostic characteristics and condition thresholds.

212) Despite the proposed action not impacting on the Poplar Box TEC, the RE 11.3.2, is a Queensland State Matter of State Environmental Significance (MSES) and has been identified in the proposed offset site. The proponent has included management measures in the OMP to protect this MSES.

213) I noted that the PER notes that there are more threatened species and ecological communities that have the potential to occur in the project area. I noted that the PER states that the impacts of the proposed action on the species are unlikely to be significant and did not require further assessment like the species above. Table 1 summarises the proponent's assessment of species presence and potential habitat.

214) I agreed with the proponent's conclusion that the remaining species are unlikely to be significantly impacted by the proposed action and further detailed assessment was not required. I made this decision with consideration of the information in the PER, statutory documents for each species, and the proposed avoidance, minimisation and mitigation measures.

Table 1: Listed threatened species and ecological communities which occur or have the potential in the project area, but are unlikely to be significantly impacted by the proposed action, and do not require detailed impact assessments

Species or Ecological Community	PER Assessment
Poplar Box grassy Woodland on Alluvial Plains - Endangered	<ul style="list-style-type: none"> The project area does contain areas matching the definitions of the Queensland RE descriptions (11.3.2) to qualify the TEC, however none of the areas met the conditions thresholds for the TEC.
Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin – Endangered	<ul style="list-style-type: none"> The project area does not contain areas matching the definitions of the Queensland RE descriptions to qualify the TEC, i.e., the project area does not contain REs 11.3.21 or 11.3.24.
Weeping Myall Woodlands – Endangered	<ul style="list-style-type: none"> The project area does not contain <i>Acacia pendula</i>, the required dominant species, and in the unlikely event that it was present as isolated trees, the species certainly would not have qualified as dominant.
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions – Endangered	<ul style="list-style-type: none"> The project area contains 1.3 ha of semi-evergreen vine thicket, located in a gorge in the upper reaches of North Creek. However, the RE assigned to this vine thicket (11.10.8) is not included in the listed threatened ecological community, on the grounds that it occurs on coarse-grained sedimentary rock, and as such, it does not qualify as the TEC.
White-throated Needletail (<i>Hirundapus caudacutus</i>) – Vulnerable	<ul style="list-style-type: none"> The airspace of the project area is considered to constitute habitat for the species (1476.44 ha). A flock of approximately 100 species was recorded moving north in the airspace above the project area. The species is not likely to land or directly interact with any terrestrial habitats in the project area.
Yakka Skink (<i>Ergernia rugosa</i>) – Vulnerable	<ul style="list-style-type: none"> All remnant and regrowth vegetation within the disturbance footprint qualifies as “suitable habitat” for the species, as all contain woody debris and/or rocks that provide structural support for burrows. However, the species was not recorded during field surveys, and no colonies have ever been recorded in the northern Bowen Basin, despite extensive ecological surveys in the area for various mining projects. The nearest records 130 km south of the project area.
Northern Quoll (<i>Dasyurus hallucatus</i>) – Endangered	<ul style="list-style-type: none"> The project area contains habitat for the Northern Quoll including 19.70 ha within 300 m of water, and 299.71 ha on Land Zones 3 and 10. Sites suitable for dens were scarce within the survey area. The species was not recorded during field surveys. No Northern Quolls have ever been detected at neighbouring mines within the Bowen Basin, with the nearest records being 100 km northeast of the project area.
King Blue-grass (<i>Dichanthium queenslandicum</i>) - Endangered	<ul style="list-style-type: none"> The project area contains heavy clay soils supporting grasses by remnant RE 11.9.2 and cleared pastures that formerly supported RE 11.4.9. However, potential habitat the species is highly degraded by grazing and unlikely to support the species The species was not recorded within the project area.
Hairy Bluegrass (<i>Dichanthium setosum</i>) – Vulnerable	<ul style="list-style-type: none"> All clay soils within the project area were dominated by exotic pasture grass, and native grass communities were observed on clay within the survey area. The nearest known record of the species is 95 km north of the project area.
Common Greenshank (<i>Tringa nebularia</i>) – Endangered	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species, noting the species habitat includes wetland, estuary, mudflats and mangrove habitats, and is an aerial dispersing species. The species was not recorded within the project area.

<p>Annual Wiregrass (<i>Aristida annua</i>) – Vulnerable</p>	<ul style="list-style-type: none"> • The project area does not contain basalt-derived soil, but black clay soils derived from fine-grained sedimentary rock occur on site and support similar vegetation communities (RE 11.9.2). However, these areas are heavily degraded by grazing, with the exotic pasture grass comprising more than 90% of the vegetation cover. • The species was not recorded within the project area.
<p>Red Goshawk (<i>Erythrotriorchis radiatus</i>) – Endangered</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat for the species. While it is considered possible that dispersing Red Goshawks may occasionally use the project area, potential habitat for the species is not of high quality; escarpments and nearby waterways mostly lack surface water, dense forest is lacking, and the surrounding landscape is highly modified through mining and clearing for grazing. • The species was not recorded within the project area.
<p>Allan’s Lerista (<i>Lerista allanae</i>) - Endangered</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat for the species, with suitable REs 11.8.5 and 11.8.11 lacking from the project area. • The species was not recorded within the project area, with the closest records being approximately 80 km from the project area.
<p>Ghost Bat (<i>Macroderma gigas</i>) – Vulnerable</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat for the species, due to the lack of terrain suitable for the formation of roosts within the broader project area. • The species was not recorded within the project area, with the nearest record being 120 km north of the project area.
<p>Latham’s Snipe (<i>Gallinago hardwickii</i>) - Vulnerable</p>	<ul style="list-style-type: none"> • The project area contains 2.9 ha of potential habitat for the species in the form of small farm dams. • The species was not recorded within the project area.
<p>Australian Painted-Snipe (<i>Rostratula australis</i>) - Endangered</p>	<ul style="list-style-type: none"> • The project area contains 2.9 ha of potential habitat for the species in the form of small farm dams. • The species was not recorded within the project area.
<p>Sharp-tailed Sandpiper (<i>Calidris acuminata</i>)- Vulnerable</p>	<ul style="list-style-type: none"> • The project area contains 2.82 ha of potential habitat for the species. The natural wetlands present on site are too small and/or are too heavily treed to provide favourable habitat for this species. However, two dams constitute marginal habitat that may be used briefly under optimal weather conditions. • The species was not recorded within the project area. A record exists from the Peak Downs mine in a large wetland from 2001, nearby to the project area.
<p>Diamond Firetail (<i>Stagonopleura guttata</i>) – Vulnerable</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat. • The species was not recorded within the project area. Mapped likely to occur habitat within the SPRAT database is located south of Nanango (approximately 600 km south from the project area), with the closest record being approximately 120 km from the project area.
<p>Grey Snake (<i>Hemiaspis damelii</i>) - Endangered</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat for the species. Whilst REs consistent with habitat known for the species are present within the project area, the project area is outside the species known distribution. • The species was not recorded within the project area, with the closest record 140 km south of the project area.
<p>Southern Snapping Turtle (<i>Elseya albagula</i>) – Critically Endangered</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat for the species as waterways within the project area are ephemeral. • The species was not recorded within the project area.
<p>Dunmall’s Snake (<i>Furina dunmalli</i>) – Vulnerable</p>	<ul style="list-style-type: none"> • The project area contains 0 ha of habitat for the species. Whilst potential habitat for the species exists within the project area, the project area is outside the species known distribution. • The species was not recorded within the project area, with the closest record being approximately 80 km south-west of the project area.

Fitzroy River Turtle (<i>Rheodytes leukops</i>) – Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species as waterways within the project area are ephemeral. The species was not recorded within the project area.
Painted Honeyeater (<i>Grantiella picta</i>) – Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species due to the scarcity of mistletoe within the project area. The species was not recorded within the project area, with the closest record being approximately 155 km south of the project area.
Star Finch (eastern) (<i>Neochmia ruficauda ruficauda</i>) – Endangered	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. Whilst potential habitat for the species exists within the project area, the project area is outside the species known distribution. The species was not recorded within the project area, with the closest record being approximately 88 km east of the project area.
Southern Black-throated Finch (<i>Poephila cincta cincta</i>) – Endangered	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. Habitat may be marginally suitable in the area with water sources and a variety of grasses present, though it is degraded in quality to the point that this species may not persist. The species was not recorded within the project area, with the closest record being 80 to 100 km south of the project area.
Corben’s Long-eared Bat/South-eastern Long Eared Bat (<i>Nyctophilus corbeni</i>) – Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. Whilst potential habitat for the species exists within the project area, the project area is outside the species known distribution. The species was not recorded within the project area, with all records being greater than 150km south of the project area.
Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>) – Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. The project area is considered to be unlikely high enough quality to attract this species. Roosting camps are not known from the area. The species was not recorded within the project area.
Murray Cod (<i>Maccullochella peelii</i>) – Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. The project is outside the native range of this species and suitable waterways are not found within the Project area.
Black Ironbox (<i>Eucalyptus raveretiana</i>) – Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. The species was not recorded within the project area, with the nearest record being found 100 km southeast of the project area.
<i>Polianthion minutiflorum</i> – Vulnerable	<ul style="list-style-type: none"> The project area contains 110.70 ha of potential habitat for the species in the form of REs 11.10.8 and 11.10.1. The species was not recorded within the project area, and the project area is not located near any populations of the species (i.e., greater than 100 km away).
Quassia (<i>Samadera bidwillii</i>) - Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. The species was not recorded within the project area, with the species occurring in lowland rainforest approximately 120 km east of the project area.
Marlborough Blue Cycad (<i>Cycas ophiolitica</i>) - Endangered	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. The species was not recorded within the project area, with the nearest records being found 110-130 km southeast of the project area.
Ooline (<i>Cadellia pentastylis</i>) - Vulnerable	<ul style="list-style-type: none"> The project area contains 0 ha of habitat for the species. The species was not recorded within the project area, with the nearest record being found 100 km southeast of the project area.

Water resource, in relation to unconventional gas development and large coal mining development (sections 24D and 24E)

Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC)

- 215) In accordance with section 131AB of the EPBC Act, the Minister is required to obtain advice from the IESC before deciding whether or not to approve, for the purposes of the controlling provision, the taking of the proposed action.
- 216) On 21 June 2024, I noted that the IESC provided advice on the proposed action in relation to potential impacts on water resources.
- 217) The IESC identified the key potential impacts to water resources from the proposed action as:
- a) removal of up to 1,309.6 ha of remnant vegetation of varying condition, including known habitat for several EPBC Act-listed species and areas of a TEC and riparian and groundwater-dependent vegetation;
 - b) increased erosion and sedimentation downstream of the project area from stream diversions and increased flood depths and velocities;
 - c) decreased water quality downstream of Hughes and East creeks due to overflows of sediment dams into receiving creeks;
 - d) groundwater drawdown of underlying aquifers within and surrounding the project area that may impact GDEs and riparian vegetation along Hughes Creek and its tributaries;
 - e) changes in groundwater quality as backfilling of pits with waste rock could allow flow-through of groundwater that may be contaminated from exposure to waste rock eastwards towards Plumtree Creek (a tributary of Hughes Creek); and
 - f) cumulative impacts with mining activities nearby (Saraji Mine Complex, Peak Downs and Caval Ridge) and on site (e.g. Matilda and Jupiter pits).
- 218) I noted that the IESC advice was critical of the information presented by the proponent, finding insufficient information on baseline and modelled data, highwall mining, parameters, assessment of potential impacts, surface water and groundwater monitoring data, and management of legacy impacts post-closure to draw conclusions and assess the cumulative impacts to water resources, GDEs and other third-party users.
- 219) Further, I noted the IESC identified areas in which work is required to address the above potential key impacts as follows:
- a) Collection of additional, up-to-date, site-specific field data that will enable clear identification of potential impact pathways and receptors in and near the project area that may be impacted by the project. This should include:
 - i) measuring groundwater levels and water quality to improve characterisation of the shallow groundwater system, particularly in riparian zones and low-lying parts of the landscape; and
 - ii) ground surveys and mapping of riparian vegetation and occurrence of terrestrial GDEs, as well as their condition and dependence on groundwater.

- b) Revised groundwater modelling informed by the additional data above and supplemented by further regional groundwater data. This should include modelling of the post-mining period.
- c) Further analysis of potential impacts to GDEs, riparian vegetation and other water-dependent assets as a result of changes to groundwater dynamics, surface water flows, groundwater and surface water quality, followed by identification and justification of any necessary mitigation measures.
- d) Once further site-specific data have been collected, the impact pathway diagram should be updated to refine the understanding of how and where the project may impact water resources. This will assist in validating further proposed monitoring programs and support development of management plans.
- e) Further details about the water management system for preventing impacts to receiving environments from overflows of sediment dams and ensuring that water management infrastructure is in place prior to activities that could contribute to decreased water quality in receiving creeks.
- f) Detailed discussion about proposed mitigation measures for erosion and sedimentation arising from stream diversion and altered flooding depths and velocities.
- g) For the highwall mining, information concerning the specific locations, design and potential ground movement (including subsidence) is required to determine potential environmental impacts.
- h) Provision of evidence and modelling to better characterise the cumulative impacts of this project and adjacent mining on groundwater, surface water (including water quality) and ecological receptors in the project area and downstream.

220) On 24 June 2024, the proponent was provided with a copy of the IESC advice. On 26 June 2024, the proponent provided a response to the IESC in the revised PER. On 27 August, the proponent provided a version of the PER which the department considered, and I agreed, contained sufficient information to address the IESC's concerns.

221) The additional information provided in response to the IESC advice has been used to inform the department's, and my own, assessment of the potential impacts of the proposed action and in drafting the recommended proposed decision. The department considered, and I agreed, that the matters raised by the IESC are addressed through the additional information supplied by the proponent and the proposed conditions of approval, along with the conditions imposed under the state government EA.

Surface water resources

Project area

222) The proposed action is located within the Isaac River sub-basin of the greater Fitzroy Basin and includes the headwaters of the Boomerang, Hughes, Barret and Harrow Creek catchments. The PER states that these creeks are largely ephemeral streams which experience flow only after sustained or intense rainfall.

- a) The catchments of Boomerang Creek, Hughes Creek and Barrett Creek commence to the west of the project area and flow through the project area in an easterly direction

towards Saraji Road and the Norwich Park Branch Railway. These creeks then flow into existing BMA operations (Peak Downs and Saraji).

- b) Headwater drainage of Harrow Creek flows through a small portion of the northern project MLA area. Harrow Creek itself is a named watercourse approximately 2.2 km downstream of the project MLA.

223) I noted that the PER states that the majority of the Isaac River catchment has been cleared for agricultural use or for mining.

224) I noted that the PER states that riparian vegetation along Hughes and Boomerang creeks provide habitat for at least five species listed under the EPBC Act.

225) The surface water assessment outline baseline surface water quality from 15 natural flow events sampled upstream of the project area between February 2020 and March 2023. The water is generally of poor quality with a range of water quality parameters that do not meet the water quality objectives for the region including aluminium, zinc, iron, turbidity, total nitrogen, total phosphorous, chlorophyll a, and hydrocarbons.

Impact assessment

226) I noted that the PER states that the two temporary drainage diversions are necessary to divert runoff from undisturbed catchments around areas disturbed by mining. The temporary drainage diversions are:

- a) to divert runoff around the proposed Vulcan North pit into tributary of East Creek (drainage line 6); and
- b) to divert runoff around the proposed Vulcan South pit into Hughes Creek (drainage line 8).

227) I noted the potential impacts from temporary drainage diversions outlined in the PER include:

- a) increased erosion and sedimentation downstream of the project area from stream diversions;
- b) increased flood depths and velocities in Hughes and East creeks from diverted flows; and
- c) decreased water quality downstream of Hughes and East creeks due to overflows of sediment dams into receiving creeks.

228) I noted that according to the geochemical assessment, the PER states that the waste rock, coal reject and coal samples are regarded as having low sulfur content and are non-acid forming, with low risk of generating acidic drainage. Surface runoff and seepage from the proposed action is expected to be pH neutral to slightly alkaline and at a low level of salinity.

229) I noted that the PER states that preliminary baseline monitoring indicates the water in the surrounding environment is of poor quality. The hydraulic characteristics of Boomerang Creek, Hughes Creek and their tributaries will undergo minimal adjustments, and the impacts do not affect the existing conditions significantly.

230) I noted that the PER states that the extent of floodplain inundation will be changed due to diverted water drains, bunds and diversions levees resulting from the proposed action. Comparison of operational conditions peak flood levels and existing conditions peak flood levels show that flood impacts as a result of the proposed mine water infrastructure are

generally within the project MLA area but impacts that extend downstream of the project boundary may require mitigation.

Cumulative impacts

231) I noted that the PER surface water assessment incorporated 18 current mine operations in the Isaac River catchment and the proposed action to consider cumulative impacts.

232) I noted that the PER surface water assessment states that the proposed project water releases will be managed within an existing overarching strategic framework for management of cumulative impacts of mining activities in the Fitzroy Basin. This framework includes model water conditions designed to manage water discharges to meet water quality objectives. I noted that the PER states that the proposed management approach for mine water from the project is expected to have negligible cumulative impacts on surface water quality and associated environmental values.

233) I noted that the PER surface water assessment states that the proposed action will result in a loss of catchment area, and potential proportional reduction in catchment flows, to the Isaac River during operation and post-mining of approximately 0.2%. Of this, around 90% will be managed through diversion and/or sediment and erosion control plan and returned to the downstream environment. In comparison, the existing mining projects considered in the cumulative impact assessment within the Isaac River catchment to the Phillips Creek confluence represent around 7.3% of the total catchment area. Considering potential discharges from the operating mines in accordance with their current approved release rules, the overall loss of catchment area and associated stream flow is relatively small.

234) I noted that the PER identifies five water licences in the vicinity of the project which may potentially be impacted. Four of the five water licences are for nearby mining activities or other industrial activities. I noted the PER states that in consideration of the already heavily disturbed nature of the adjoining downstream catchment, it is unlikely the proposed action will have a measurable impact on receiving water quality or environmental values.

Avoidance, mitigation and management measures

235) I noted that the PER states that the proposed action has avoided disturbance for large corridors including a tributary of Plumtree Creek (between the north and main pit) and the Hughes Creek watercourse and tributary (located between the main and south pit) that contains high value habitat for Greater glider and Koala, minimising potential impact to surface water watercourses, riparian vegetation and habitat for threatened species.

236) I noted that the PER states that the performance of the mine water management system in managing impacts to water has been investigated using a detailed water balance model. The model simulated water inflows and outflows through the various stages of mine development, over a range of climate scenarios. I noted that the PER also states that potential impacts of the proposed action on surface water resource will be effectively mitigated through the mine site water management system to control the flow and storage of water of different qualities across the site. The mitigation measures are outlined below.

- 237) The proposed action has received the required State approvals including an EA (P-EA-100265081) under the EP Act. The department noted, and I agreed, that the EA includes conditions related to surface water in Schedule F.
- 238) I noted that the PER states that mine affected water (MAW) will be managed through a mine water management system and no spillage will occur to the receiving environment from mine water dams or open cut pits. I noted that the EA, Schedule F, pertains to surface water conditions including F2 which states that mine affected water must not be released directly or indirectly to the receiving environment.
- 239) I noted that the PER states that the water quality monitoring program includes monitoring MAW dams with the potential to discharge to the receiving waters to provide indication on MAW quality. I noted that this is also conditioned specifically in Schedule F of the EA.
- 240) I noted that the REMP aims to monitor and assess the potential impacts of controlled or uncontrolled releases of wastewater and associated contaminants to the environment from a regulated activity. I noted that the EA provides direction on the requirements for the REMP and defines the receiving environment in Conditions F16 to F21.
- a) The department reviewed the REMP and required further information to ensure the REMP was adequate to detect any impacts to the receiving environment. The department recommended approval of, and I approved, the revised REMP as part of the approval decision. The department also recommended, and I imposed, conditions for its implementation. In line with the EA, I noted that the department must also receive the REMP Annual Report and any updates of the REMP must also be submitted to the department for approval.
- 241) The ESCP outlines a range of sediment and erosion control measures, surface water monitoring, investigation and management activities designed to avoid and mitigate impacts to the receiving environment. The ESCP also commits to installing all sediment control structures prior to any upstream disturbance, clearing, construction or any mining activities within their respective catchments. I noted that the EA includes conditions related to the sediment and erosion control F28 to F32.
- a) I noted that the department reviewed the ESCP and required further information to ensure the ESC was adequate to avoid and mitigate impacts to the receiving environment. The department recommended, and I approved, the revised ESCP as part of the approval decision. The department also recommended, and I imposed, conditions for its implementation. In line with the EA, I noted that the department must also receive the ESCP Annual Review and any updates of the ESCP must also be submitted to the department for approval.
- 242) I noted that the PER states that the proposed rehabilitation of the project area includes progressive backfilling of all pits, stabilisation of waste rock emplacements through reseeding with grazing grasses and realigning the diverted streams back to their original courses over the backfilled pits.
- 243) I noted that the PER states that the Department of Natural Resources, Mines and Energy's 2019 guidelines [Works that interfere with water in a watercourse for a resource activity –

watercourse diversions authorised under the Water Act 2000] for Bowen Basin streams was used to design the drainage diversions.

- a) Drainage line 6 has been designed for flood events up to 0.1% Average Exceedance Probability (AEP). The diversion drain and downstream drainage line will be suitably lined to manage channel erosion and prevent scour.
- b) Drainage line 8 is designed for 10% AEP flows as the Hughes Creek floodplain is inundated during larger events. The diversion drain and downstream Hughes Creek channel will be suitably lined to manage channel erosion and prevent scour.

244) I noted that the PER states that with the proposed management approaches for mine water and sediment and erosion control, the impact on surface water resources would be minimal and localised. Furthermore, the drainage diversions are temporary, and the original drainage line and floodplains will be reinstated during post-closure conditions, any impacts will be negligible.

245) I noted that the department had undertaken an adequacy review of the EMP, REMP and ESCP and provided feedback to the proponent to increase the management and offset commitments to ensure better environmental outcomes for protected matters. The department recommended approval of the revised EMP, REMP and ESCP as part of the approval decision which I approved.

Conclusion

246) With the implementation of the mitigation and management measures proposed, and assuming compliance with the EA, EMP, REMP and ESCP, and recommended conditions of approval, I considered that the proposed action will not have an unacceptable impact on surface water.

Groundwater resources

Project area

247) I noted that the PER groundwater impact assessment (GIA) states that the project area lies in a region where the Quaternary alluvium, Tertiary sediments, and Permian coal measures yield low volumes of groundwater and would not typically be classified as aquifers. However, there may be individual units within these formations that have higher hydraulic conductivities containing groundwater and these may be referred to as aquifers for impact assessment.

248) The project area is to the west of, and at higher elevation than Saraji Mine and other mines to the east. The GIA states that this landscape position affects the local hydrogeology and the groundwater table is generally deeper than that observed at Saraji Mine.

249) I noted that the PER states that site-specific data, including over 909 drill holes, were used to develop detailed geology model of the site. This model has not identified any faults, paleochannels or intrusions in the project area. There were also no Tertiary sediments nor any Quaternary alluvium near the proposed open pits and more broadly within the project area.

250) I noted that the GIA states that very little to no Quaternary alluvium is present in creeks in the region and that creeks are dry for the majority of the time and any alluvium is unsaturated. The groundwater beneath the creeks is greater than 10 m below ground level and it is assessed that there are no significant surface-groundwater interactions in the project area.

251) I noted that the PER states that site specific groundwater level, quality and permeability data has also been captured part of a dedicated groundwater drilling and investigation program.

252) I noted that the PER states that the pH of local groundwater is neutral to slightly acidic, brackish to highly saline. As a result, the local groundwater is unsuitable for irrigation or human consumption but may potentially be used for industrial purposes and in limited quantities as water for livestock.

253) The presence of third-party bores was assessed through consideration of the registered bores and through discussions with private landholders within 5 km of the project area. The investigation concluded that most bores in the vicinity of the project area are for monitoring purposes instead of groundwater use and none provide fresh water.

Impact assessment

254) I noted that the GIA states that the groundwater model predicts a maximum groundwater inflow of less than 43 m³/day in Vulcan main pit, while Vulcan North and Vulcan South pits are both predicted to have less than 5 m³/day of groundwater inflow and will effectively be dry pits during mining. I noted that the PER states that the low magnitude of groundwater inflows means that the inflows will likely have a negligible impact on the water balance for the proposed action.

255) I noted that the GIA states that the maximum predicted drawdown due to the proposed action is approximately 10 m in the vicinity of the Vulcan Main pit, with negligible drawdown elsewhere. The predicted drawdown propagation is towards the existing Saraji mine. There is no predicted residual drawdown post-closure due to backfilling following mining.

256) I noted that the GIA states that there are no third-party groundwater users within the predicted extent of drawdown and hence impacts on existing users are considered very unlikely.

257) I noted that the GIA states that impacts of surface waters from groundwater drawdown are considered extremely unlikely due to absence of surface-groundwater interactions.

258) I noted that the GIA states that during mining, the proposed pits and Saraji Mine pits will act as sinks for surrounding groundwater. As a result, any contamination of the groundwater due to the proposed action will return to the mine pit and be contained during operations. As the proposed action will be progressively backfilled and rehabilitated, no residual pit voids will remain in the project area post-mining. It is assumed that pit voids at Saraji Mine and Peak Downs mine will remain in perpetuity and behave as regional evaporation sinks, thereby minimizing the risk of further migration of potential contaminants.

Cumulative impacts

259) I noted that cumulative impacts on groundwater were assessed in the GIA by representing historical and proposed mining including the Vulcan Coal Mine, Saraji Mine and Peak Downs mine. The impacts of these projects have been predicted for both the 'with proposed action' and 'without proposed action' model scenarios. The results predict that:

- a) cumulative drawdown within the project area is greater than 20 m for both scenarios, with the proposed action generally contributing up to 50% of the drawdown within the

project area, however this contribution diminishes towards the existing Saraji Mine and Peak Downs Mines; and

- b) the greatest drawdown occurs within the Saraji Mine and Peak Downs Mine open pit extents.

Avoidance, mitigation and management measures

260) I noted that management of hydrocarbons and chemicals in accordance with AS1940: The Storage and Handling of Flammable and Combustible Liquids will prevent contamination of water resources. Additionally, I noted that the EA condition E1 states that contaminants must not be released directly or indirectly to groundwater.

261) I noted that the GIA states that an adaptive management strategy is proposed to manage and mitigate drawdown and potential water quality impacts. This strategy includes the following iterative components that will be defined in the EA:

- a) Acceptance of the groundwater monitoring network;
- b) Development of interim groundwater quality guidelines included in the conditions in the EA;
- c) Quarterly groundwater sample collection, level measurement and datalogger download;
- d) Development of groundwater trigger levels and contaminant limits once 12 to 24 months of groundwater quality data is available to be included in amended conditions in the EA;
- e) Develop a suitable water management plan;
- f) Annual assessment of the suitability of the groundwater monitoring network;
- g) Annual assessment of groundwater level and quality data in consideration of DES (2021); and
- h) Every three years consider the requirement to redevelop and/or recalibrate the numerical groundwater model. Where data allows, model updates are to include an updated representation of Saraji Mine and Peak Downs Mine, including post-closure simulation.

262) I noted that the GIA also states that no mitigation measures are currently proposed or required for the proposed action as impacts are considered highly unlikely. Should monitoring and subsequent assessment determine potential impacts, mitigation strategies would be considered commensurate with the level and risk of environmental impact.

263) I noted that the EMP outlines the management of direct impacts to groundwater in sub-plan D, and includes commitments to:

- a) install all proposed bores prior to the commencement of the project in accordance with the EA conditions;
- b) review, verify and update the groundwater model within 12 months of commencement of the project and every three years thereafter;
- c) include recalibration noting that Scaled Root Mean Square error of 10% is the recommended industry threshold for recalibration; and
- d) undertake subsidence and seepage monitoring at the Highwall trial area pre-extraction, 3-months post extraction and annually thereafter for 5 years.

264) I noted that the department had undertaken an adequacy review of the EMP and provided feedback to the proponent to increase the management and offset commitments to ensure better environmental outcomes for protected matters. The department recommended approval of the revised EMP as part of the approval decision which I approved.

Conclusion

265) With the implementation of the mitigation and management measures proposed, and assuming compliance with the Queensland EA and recommended conditions of approval, I considered that the proposed action will not have an unacceptable impact on groundwater.

Groundwater-dependent ecosystems (GDEs)

Project area

266) I noted that the PER states that, based on literature reviews, depth-to-groundwater data, national GDE mapping, and water quality data, there are likely to be some terrestrial GDEs contained within the project area along Hughes and Boomerang Creeks as well as along several unnamed watercourses within the project area. These terrestrial GDEs are associated with *Eucalyptus camaldulensis* and *Melaleuca leucadendrea* (associated with RE 11.3.25) and *E. populnea* (associated with RE 11.3.2 and 11.5.3).

267) I noted that the PER states that field survey for aquatic GDEs was undertaken post-wet season in April 2019. Aquatic habitat and macroinvertebrates were assessed using the Australian River Assessment System protocol, while aquatic plants and fish were surveyed in accordance with DESI's Flora Survey Guidelines – Protected Plants and Commonwealth Government's Survey Guidelines for Australia's Threatened Fish.

268) I noted that the PER states that the main stem of Hughes Creek within the project area is mapped as a potential aquatic GDE based on national-scale mapping. However, the Aquatic Ecology Study states that key criteria that indicate potential for surface expression GDEs were not met in, or around, the project area because:

- a) The Isaac River only flows about 26% of the time, Hughes Creek about 6% of the time, and waterways of the specific Project study area would flow less than Hughes Creek;
- b) The flow volume of specific waterways of the Project Area does not increase in the absence of rainfall or tributary inflows, and
- c) There were no springs or seeps at any survey site, and review of aerial imagery indicates an absence of springs from the Project Area.

269) I noted that the PER states that no subterranean GDEs (cave or aquifer ecosystems) were present in the vicinity of the project area.

270) I noted that stygofauna were assessed using a desktop review and field survey (Stygofauna pilot survey). Of six bores that had groundwater present, a single ostracod species was found in four of the bores. The taxon found (stygoxene) is not dependent on groundwater. The species is considered to be widespread and tolerant of the full range of groundwater quality found in the broader region.

Impact assessment

271) I noted that the PER states that small areas of terrestrial GDEs will be cleared during the proposed action. These impacts are outlined in relation to koala and Greater glider in listed threatened species and ecological communities section above.

272) I noted that the PER states that groundwater drawdown from the proposed action is predicted to be limited in extent (up to 2,400 m to the east of the proposed action pits towards existing mines) magnitude (up to 10 m) and will not affect any GDEs outside of the proposed action disturbance footprint.

273) I noted that the PER states that as no aquatic or subterranean GDEs were identified, no further assessment on impacts were undertaken.

274) I noted that the PER undertook a risk-based assessment of impacts to stygofauna and determined that the mitigated risk of impact was low. I agreed with this conclusion.

Avoidance, mitigation and management measures

275) The department noted, and I agreed, that avoidance, mitigation and management measures for groundwater resources outlined above apply also to avoid, manage and mitigated any impacts to GDEs.

Conclusion

276) Based on the nature and scale of the impacts, implementation of the mitigation and management measures proposed, and assuming compliance with the Queensland EA and recommended conditions of approval, the department considered, and I agreed, that the proposed action will not have an unacceptable impact on GDEs or stygofauna.

Factors to be taken into account – section 136**Social and economic matters – section 136(1)(b)**

277) I noted that Vitrinite have broken down costs and benefits into a table and then separated them through various stages of the project (construction, operation and rehabilitation and decommissioning) in the PER.

278) I noted that the PER outlined social benefits associated with construction involve additional construction workforce employment, corporate sponsorship of local grounds and services by Vitrinite, and indigenous employment and land access. Social costs associated with construction involve minor short-term pressure on social services such as housing, health, childcare, education and emergency services associated with increased population.

279) I noted that economic benefits associated with construction described in the PER included significant capital expenditure on infrastructure, offset area funding (landholder and manager), landholder compensation funding (landholder), local economic inputs from construction workforce and supply chain, local increase in household income from construction workforce wages and salaries and corporate taxes. Economic costs associated with construction involve significant capital expenditure on infrastructure, offset area funding (proponent), landholder compensation funding (proponent).

- 280) I noted that social benefits associated with operation outlined in the PER include investment in housing rather than mine camps, indigenous employment and land access, corporate sponsorship of local grounds and services by Vitrinite, construction workforce employment and population increase in Dysart which leads to greater support for establishment and maintenance of local services and businesses. Social costs associated with operation includes additional pressure on social services such as housing, health, childcare, education and emergency services associated with increased population.
- 281) I noted that the PER stated that economic benefits associated with operation include ongoing capital expenditure on infrastructure and equipment (regional and state economies), ongoing operational expenditure on mining activities (local, regional and state economies), ongoing offset area funding (landholder and manager), ongoing landholder compensation funding (landholder), royalties paid to the state government, corporate taxes, local economic inputs from operational workforce and supply chain, operational workforce wages and salaries, improved utilisation of available rail and port capacity. Economic costs associated with operation include capital expenditure on infrastructure and equipment (proponent), ongoing operation expenditure on mining activities (proponent), ongoing offset area funding (proponent), ongoing landholder compensation funding (proponent).
- 282) I noted that the PER stated that social benefits associated with rehabilitation and decommissioning include rehabilitation workforce employment, corporate sponsorship of local groups and services by Vitrinite and indigenous employment and land access. Social costs associated with rehabilitation and decommissioning include reduced pressure on social services such as housing, health, childcare, education and emergency services associated with increased population, and potential impacts on services and business associated with a reduction in local population.
- 283) I noted the economic benefits associated with rehabilitation and decommissioning include minor ongoing capital expenditure (regional and state economies), ongoing operational expenditure on rehabilitation activities (local, regional and state economies), ongoing offset area funding (landholder and manager), ongoing landholder compensation (landholder), corporate taxes, local economic inputs from rehabilitation workforce and supply chain, rehabilitation workforce wages and salaries. Economic costs associated with rehabilitation and decommissioning include minor ongoing capital expenditure (proponent), ongoing operational expenditure on rehabilitation activities (proponent), ongoing offset area funding (proponent), ongoing landholder compensation funding (proponent).

Principles of ecologically sustainable development – section 136(2)(a)

- 284) In deciding whether or not to approve the taking of an action and the conditions to attach to an approval, section 136(2)(a) of the EPBC Act provides that I am required to take into account the principles of ecologically sustainable development (ESD). The principles of ESD, as defined in Part 1, section 3A of the EPBC Act, are:
- a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;

- b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- c) the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;
- e) improved valuation, pricing and incentive mechanisms should be promoted.

285) In addition, section 391 of the EPBC Act provides that I must take into account the precautionary principle in deciding whether or not to approve the taking of an action. The precautionary principle requires that, if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

286) The department considered, and I agreed, that the proponent has provided accurate habitat assessments and survey efforts to clearly explain, with the greatest reasonable scientific certainty, how each potentially impacted species will, or will not be, impacted by the proposed action.

287) The department considered, and I agreed, that there is a threat of serious or irreversible damage from the proposed action to the Brigalow TEC, Koala, Greater glider and Squatter pigeon.

288) The department recommended, and I have imposed, conditions of approval that will require specific measures to mitigate and compensate for environmental degradation through land offset. I have also taken into consideration the management plans provided that will minimise and mitigate risks to threatened species.

289) In formulating this recommendation, I have taken into account the principles of ecologically sustainable development. In particular:

- a) The department's recommendation report and the assessment documentation provided, which contain information on the long-term and short-term economic, environmental, social, and equitable considerations that are relevant to my decision.
- b) Any lack of certainty related to the potential impacts of the projects is addressed by conditions that restrict environmental impacts, impose strict monitoring, and adopt environmental standards which, if not achieved, require the application of response mechanisms in a timely manner to avoid adverse impacts.
- c) The conditions will ensure protection of EPBC listed species and communities, and the environment of Commonwealth land. These conditions allow for the project to be delivered and operated in a sustainable way to protect the environment for future generations and preserve EPBC listed species and communities in perpetuity.
- d) I considered the importance of conserving biological diversity and ecological integrity in relation to all the controlling provisions for this project, and the information provided within this document reflects that consideration.

- e) The department's advice to me includes reference to and consideration of a range of information on the economic costs, benefits and impacts of the project. Based on the reference to relevant Queensland Government Planning and policy documents in the assessment documentation, I decided that the project has given consideration to evaluation, pricing, and incentive mechanism, relevant to the project.

Public environment report – section 136(2)(c)

- 290) In accordance with section 136(2)(c)(i), the finalised environment public environment report I considered under section 99 were attached to the decision package.
- 291) In accordance with section 136(2)(c)(ii), I was given the recommendation report relating to the action to consider, in accordance with section 100.

Relevant comments – section 136(2)(f)

- 292) Public comments were invited on the referral and the draft assessment documentation. I considered that adequate public consultation for the proposed action has occurred. Therefore, I did not invite public comment under section 131A on the proposed decision and the recommended conditions of approval as I decided that was unlikely to elicit views or information that had not already been considered in relation to the proposed action.
- 293) Under section 131, I invited other ministers to give comments on the proposed decision within 10 business days.
- 294) The minister I invited to comment was:
 - a) The Hon Madeleine King, Minister for Resources and Minister for Northern Australia
- 295) I considered that this minister may have administrative responsibilities relating to the action.
- 296) Under section 131AA(1), the proponent was invited to give the Minister comments on the proposed decision and recommended conditions of approval within 10 business days of the proposed decision date.
- 297) While I was not required to do so, I also informed the following State government minister of my proposed decision, and invited them to provide any comments:
 - a) Hon Andrew Powell Minister for the Environment and Tourism and Minister for Science and Innovation.
- 298) On 16 December 2024, the department received comments from the proponent on the proposed conditions of approval. The department met with the proponent to discuss these comments on 24 December 2024. I noted that substantive concerns from the proponent during this consultation included the following:
 - a) The proponent suggested Condition 4d should specify no clearing of active Squatter pigeon nests rather than all Squatter pigeon nests.
 - i) The department agreed with the suggestion by the proponent and modified the definition to mean an active Squatter pigeon nest is one with evidence of use by Squatter pigeon eggs or juveniles. I agreed with this.
 - ii) In addition, the department also modified the relevant condition (4b) to ensure all clearing within 100m of Squatter pigeon individuals, active nests and habitat is halted

until a fauna spotter identifies and relocates all Squatter pigeon individuals, active nests and eggs from the area. The department was satisfied that the new condition and definition will limit direct impacts to the Squatter pigeon from clearing activities. I agreed with this.

- b) The proponent suggested deletion of Condition 11a which requires maintenance of Koala, Greater glider and Squatter pigeon habitat quality within avoidance areas in the project area for the duration of the approval. The proponent considered it would be difficult to implement due to limited baseline surveys of avoidance areas and felt it was a duplication with other conditions of approval.
 - i) The department disagreed with the suggested deletion of this condition as avoidance areas within the project area should not be impacted by the proposed action. Additionally, the department met with the proponent on 24 December 2024 and noted it considered the proponent did have sufficient baseline surveys which were provided in the assessment of the proposed action. The proponent agreed with this position. I agreed with this.
- c) The proponent was concerned the proposed conditions relating to approval of a water management plan (WMP), a Queensland Voluntary Declaration, a Greater glider artificial hollows management and monitoring plan (GGAHMMP) and a species stocking rate survey monitoring plan (SSRSMP) before the proponent could mine any coal would have significant impacts on the business. The proponent proposed the alternative timeframe for submission of these requirements as being either 12 months from the final approval or the commencements of the coal handling and processing plant construction.
 - i) The department considered the suggestion by the proponent and agreed that the coal handling and processing plant construction must not commence until the WMP, the Queensland Voluntary Declaration, the GGAHMMP and the SSRSMP are approved by the department. To ensure the department has adequate time to approve these requirements, the updated conditions require the approval holder to submit these within 6 months of the final approval.
- d) Concerns of duplication for a water management plan within the proposed conditions of approval and the existing Queensland Environmental Authority (EA) were raised by the proponent. The proponent proposed removing the requirement for a water management plan in the proposed conditions of approval.
 - i) The department considered that the water management plan required under the EA does not provide for enough assurance that the action will not have a significant impact on Commonwealth protected matters and therefore disagreed with the proponent. I agreed with this.
 - ii) In conversation with the proponent on 24 December 2024, the department noted its concerns with removing this condition and that it was acceptable for the proponent to submit one plan that included both the requirements in the EPBC act approval and the EA. The proponent agreed to retaining the water management plan conditions.
- e) Concerns of duplication for a weed management plan within the proposed conditions of approval and the existing EA. The proponent noted that the weed management plan is not required to be approved under the EA and proposed a change to the wording

regarding the weed management plan to reflect this in the proposed conditions of approval.

- i) The department considered possible duplication with the requirements for a weed management plan under the EA, and determined it was sufficient in protecting Commonwealth protected matters. The department subsequently amended the conditions of approval to only require implementation of the EA weed management plan. I agreed with this.

299) On 11 December 2024, the Department of Industry, Science and Resources (DISR) provided a response to the invitation to the Minister of Resources and Minister for Northern Australia. The DISR stated they were comfortable with the proposal and noted it was supportive of the inclusion of the Water Management Plan and groundwater trigger levels.

300) On 23 December 2024, the Queensland Department of Environment, Tourism, Science and Innovation (DETSI) provided a response to the invitation to comment on 10 December 2024. Comments on the proposed conditions of approval made by DETSI include:

- a) DETSI noted the approval holder was only required to submit a weed management plan under the EA, it did not require approval prior to its implementation.
 - i) The department since removed the reference to a weed management plan needing to be approved under the EA and now it only requires the approval holder to implement the EA required plan (Condition 21) and I agreed with this.
- b) DETSI noted the proposed conditions of approval included an incorrect reference to the need for plans to be approved under the EA.
 - i) The department removed the reference to plans needing to be approved under the EA and now it only notes them requiring implementation (Condition 40c) and I agreed with this.
- c) DETSI noted the definition for Queensland Environmental Authority includes the current date of approval of 5 April 2024 which was likely to change over time as amendments are made to the EA.
 - i) The department disagreed and kept the original definition as it believed Conditions 43 and 44, which state the approval holder must notify the department of any proposed change to the EA that may relate to protected matters, will require the conditions of approval to be amended with any change to the EA, including its approval dates. I agreed with this.

301) On 6 December 2024, the department's Biodiversity Division was consulted on whether there would be any proposed changes to consideration advices, recovery plans or threat abatement plans that might be relevant to this project.

302) On 17 December 2024, the Biodiversity Division replied noting a proposed change to the *Threat abatement for predation by feral cats*, relevant to the Squatter pigeon, was likely.

303) On 24 December 2024, the revised *Threat abatement for predation by feral cats 2024* took effect. The revised threat abatement plan lists the Squatter pigeon as 'moderately' susceptible to predation by feral cats whereby a population is likely to persist in the presence of cats but with moderate reduction (<50%) in its population size and viability.

Relevant advice – section 136(2)(fa)

304) On 10 May 2024 the department submitted the draft PER to the IESC for advice on the proposed action's potential impacts on water sources.

305) On 21 June 2024 the IESC provided advice on the proposed actions potential impacts on water sources. The proponent was provided this advice on 24 June 2024.

306) The key potential impacts identified in the IESC advice is discussed at paragraph 217-219 above.

Other matters for decision making**Person's environmental history – section 136(4)**

307) Section 136(4) of the EPBC Act states that *in deciding whether or not to approve the taking of an action by a person, and what conditions to attach to an approval, the Minister may consider whether the person is a suitable person to be granted an approval, having regard to:*

- a) *the person's history in relation to environmental matters; and*
- b) *if the person is a body corporate—the history of its executive officers in relation to environmental matters; and*
- c) *if the person is a body corporate that is a subsidiary of another body or company (the parent body)—the history in relation to environmental matters of the parent body and its executive officers.*

308) I took the proponent's environmental history into account and considered that the proponent is a suitable person to undertake the proposed action under the EPBC Act. The reasons are outlined below.

309) The department noted that there have been three environmental history compliance infringements issued to the proponent: one under the EPBC Act and two under the EP Act. These are outlined below.

310) The department's Compliance and Enforcement Branch (**CEB**) undertook an environmental history check on 18 November 2024 for the proponent. The information provided by CEB is discussed below.

311) Additional information regarding the proponent's compliance history was provided by the proponent, through public comments and environmental advocacy groups. Relevant information from these sources is outlined below.

Proponent's infringement history***Infringements under the Qld EP Act***

312) I noted that the proponent holds an environmental authority (EA under the Queensland EP Act) for a bulk sampling project in permit area EPC1233. The EA authorises the following environmentally relevant activities (**ERAs**):

- a) a mining activity involving drilling, costeaning, pitting or carrying out geological surveys causing significant disturbance; and

- b) investigating the potential development of a mineral resource by large bulk sampling or constructing an exploratory shaft, adit or open pit.

313) On 17 June 2024, the proponent was issued a Direction Notice under the EP Act in relation to the EA. The Direction Notice was issued because the proponent had contravened and continued to contravene section 426 of the EP Act which states: "A person must not carry out an ERA unless the person holds, or is acting under, an EA for the activity".

314) I noted that the Direction Notice states that the proponent had conducted and continued to conduct the ERAs in areas that were not authorised by the EA. The unauthorised disturbance outside of the EA area was estimated to be approximately 2 ha, and commenced on, or around, 30 April 2024.

315) I noted that during a meeting held between DETSI and the proponent on 14 June 2024, the proponent confirmed that it was responsible for the unauthorised disturbance area.

316) I noted that the Direction Notice required the proponent to cease carrying out the unauthorised ERA, and either rehabilitate the disturbance area, or submit an amendment application for the EA that includes the disturbed area.

317) I noted that the Direction Notice was raised in a number of public comments on the Draft PER. In response to these comments on the PER, the proponent stated in the Vulcan South Coal Mine PER Public Submission Response that:

"Vitrinite acknowledges these compliance matters. Whilst they are relatively minor in nature, Vitrinite takes them seriously. Vitrinite has continued to work with the relevant department to resolve the matters and to put measures in place to mitigate the risk of reoccurrence. Vitrinite remains in compliance with the conditions of those compliance notices."

Environmental Protection Order

318) The proponent holds an EA under the EP Act for Vulcan Coal Mine on ML700060. The EA authorises the environmentally relevant activities (ERAs) related to the mining and processing of coal within ML700060.

319) I noted that, on 22 March 2024, the proponent was issued an Environmental Protection Order (EPO) under the EP Act in relation to the EA. The EPO was issued on the grounds that:

- a) the proponent was, or had been contravening all or part of multiple conditions of the EA;
- b) DETSI required the proponent to take reasonable measures to secure compliance with the EA to prevent a non-compliance with conditions of the EA, and
- c) DETSI required the proponent to take reasonable measures to secure compliance with the General Environmental Duty, pursuant to section 358(d)(i) of the EP Act.

320) The EPO was issued in response to the proponent reporting to DETSI that it had discharged mine affected water and exceeded trigger levels for contaminants between November 2022 and March 2023. DETSI also further alleged in the EPO that:

- a) The proponent failed to install and operate necessary measures as required by condition A5 to ensure compliance with the monitoring requirements of condition F5 and F6 of the EA;

- b) The proponent contravened conditions A5 and F18 of the EA by failing to implement all measures, including pre-wet season preparedness actions, written procedures, inspections and maintenance to manage actual and potential impacts relating to water management during the wet season at Vulcan Coal Mine;
- c) The proponent contravened condition F20 of the EA by not implementing their Erosion and Sediment Control Plan for the duration of activities at Vulcan Coal Mine; and
- d) The proponent failed to meet their general environmental duty as they failed to take all reasonable action to prevent or minimise potential environmental harm associated with the activities at Vulcan Coal Mine.

321) I noted that the EPO requires the proponent to undertake several measures that prevent further exceedance of trigger levels, improve sediment and erosion control and improve monitoring.

322) I noted that in section 10.3 of the PER the proponent states that they have met the required actions of the EPO to date, including:

- a) Identification and installation of the relevant measures identified by the appropriately qualified person to ensure any release from a sediment dam is sampled in accordance with the EA;
- b) An assessment of the current mine water management system onsite and the current erosion and sediment control measures onsite to determine their effectiveness; and
- c) An updated Water Management Plan and an updated Erosion and Sediment Control Plan.

323) I noted that in section 10.3 of the PER, the proponent further states the Vulcan South Water Management Plan and Erosion and Sediment Control Plan, inclusive of the relevant mitigation measures proposed in the PER, have been developed by an appropriately qualified person who is cognisant of the EPO matters and their resolution.

Non-compliance under the EPBC Act

Directed Variation

324) I noted that the proponent holds an approval under the EPBC Act for the Vulcan Complex Project, near Moranbah, Queensland (EPBC 2020/8676).

325) I noted that, on 22 July 2024, the Minister directed a variation to the approval conditions attached to the Vulcan Complex Project for the proponent failing to legally secure offset areas within the timeframe required by the conditions of approval and for clearing outside of the approved project area.

326) The varied conditions of approval require the management and legal securement of additional offset areas for Koala and Squatter pigeon, and financial contributions to species' funds.

327) I noted that in Section 10.3 of the PER, the proponent states that they are currently working through this directed variation of the approval conditions with the department's compliance team. The proponent further states that the disturbance remains within the total area of disturbance authorised and has not impacted Matters of National Environmental Significance (MNES) beyond that authorised in the approval conditions.

Ongoing investigation under EPBC Act into clearing

- 328) I noted that the department and proponent received several public comments on the Draft PER that related to alleged land clearing within the project area of the proposed action for a bulk sample pit.
- 329) On 4 October 2024, the Queensland North Assessment Section of the department requested the CEB to conduct an environmental history check on the proponent.
- 330) On 9 October 2024, the CEB provided advice that it had identified a potential contravention of section 74AA of the EPBC Act by the proponent. The advice stated that CEB had identified the potential action of clearing within the footprint of the proposed action and that the matter was under investigation under the EPBC Act.
- 331) I acknowledged the concerns relating to the alleged clearing, raised through public comments following publication of the PER, but the department recommended, and I agreed, not to consider this matter part of the proponent's environmental history as it involves an ongoing investigation. The *EPBC Act Policy Statement – Consideration of a Person's Environmental History when making Decisions under the EPBC Act* states that, "An incomplete investigation would not be considered as part of a person's environmental history, as no proceedings may result, or the person may be found not to have contravened any environmental requirements." I did not consider the circumstances of this case mean that it is appropriate to depart from this policy.
- 332) Therefore, as the matter is currently under investigation, and a contravention of the EPBC Act may not be found, the department recommended, and I agreed, to not consider the matter in determining if the proponent is a suitable person to be granted approval.
- 333) Further, in circumstances where there is a statutory timeframe, and no reasonably foreseeable time by which the outcome of this investigation would be known, the department did not recommend that I extend the time to make this decision. I agreed with this recommendation.

Vitrinite's Environmental, Governance and Social Statement

- 334) I noted that Appendix DD of the PER includes the Environmental, Governance and Social Statement of the proponent's parent company, Vitrinite. I noted that in section 10.3 of the PER, the proponent states that Vitrinite is committed to effectively managing its impact on Environment, Social and Governance (ESG) matters, and that the ESG statement provides for sustainable environmental management, socially responsible operations and ethical business management, driven by the board of directors.
- 335) I noted key environmental commitments included in the ESG statement include:
- a) Vitrinite aim to tread lightly and leave all lands as or better than we found them;
 - b) we promote resource stewardship and sustainable land management through establishment of post mining land uses;
 - c) we optimise equipment selection and its use to reduce Greenhouse Gas Emissions;
 - d) we regularly report on environmental outcomes and maintain accountability of sites until relinquishment; and
 - e) we strive to minimise our environmental footprint and offset unavoidable ecological impacts at Vitrinite's operations. We manage the impact of our projects by:

- i) reducing vegetation clearing by prioritising pre-cleared sites and access tracks
- ii) avoiding ecological impacts where possible
- iii) progressively rehabilitating sites as soon as practicable.

My conclusions regarding the proponent's environmental history

336) I considered the above information regarding the proponent's environmental history and considered that the proponent is suitable to undertake the proposed action for the reasons outlined above.

337) Furthermore, I approved the proponent's OMP, EMP, ESCP and REMP at the time of my final decision to approve the proposed action. The proponent's OMP, EMP, ESCP and REMP have undergone adequacy review processes by the department and I am satisfied that they will effectively manage and mitigate the proposed action's impacts on MNES and that the offsets will achieve a conservation gain for significantly impacted MNES. The conditions of approval state that these management plans must be implemented. The department considered, and I agreed, that these management plans provide clear requirements of the proponent and provide confidence that they will be able to undertake the proposed action as outlined in the conditions of approval.

338) I have imposed conditions of approval that are prescriptive and have clear environmental outcomes therefore clearly outlining the requirements of the approval holder in undertaking the proposed action. I considered that the conditions of approval are suitable to ensure the management, mitigation and offsetting of impacts to MNES by the proposed action, having regard to the environmental history matters discussed above.

Delegate not to consider other matters – section 136(5)

339) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, I did not consider any matters that I was not required or permitted to consider by Division 1, Part 9 of the EPBC Act.

Threatened species and endangered communities – section 139

Biodiversity Convention

340) I noted that the objectives of the Biodiversity Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

341) I considered that the approval of the proposed action is not inconsistent with the Biodiversity Convention, which promotes environmental impact assessment (such as the process used to inform my decision) to avoid and minimise adverse impacts on biological diversity. I considered that there was an appropriate combination of avoidance and mitigation measures for the management of species potentially impacted by the proposed action.

342) I considered that the Biodiversity Convention has been considered in, and is not inconsistent with, the recommended approval which requires avoidance, mitigation, and management

measures for listed threatened species and communities. I also considered that the approval requires information related to the proposed action to be publicly available to ensure equitable sharing of information and improved knowledge relating to biodiversity.

Apia Convention

343) I was directed to the Convention on the Conservation of Nature in the South Pacific (Apia Convention) which encourages the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural, or scientific value.

344) I noted that the Apia Convention was suspended with effect from 13 September 2006. While this Convention has been suspended, I considered Australia's obligations under the Convention. I considered that, in approving the proposed action, subject to conditions, the approval decision would not be inconsistent with the Convention which has the general aims of conservation of biodiversity.

International trade in endangered species

345) I was directed to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

346) I accepted the department's recommendations that approving the proposed action, subject to conditions, would not be inconsistent with CITES as the proposed action does not involve international trade.

Recovery Plans and Threat Abatement Plans

347) I noted that the recovery plan relevant to the proposed action and assessment is:

- a) Department of Agriculture, Water and the Environment (2022). National Recovery Plan for the Koala *Phascolarctos cinereus* (combined populations of Queensland, New South Wales and the Australian Capital Territory). Department of Agriculture, Water and the Environment, Canberra. Available from: <https://www.dcceew.gov.au/sites/default/files/documents/recovery-plan-koala-2022.pdf>. In effect under the EPBC Act from 08-Apr-2022.

348) This recovery plan is available at the link above. I have provided a discussion of the recovery plan in respect to Koala (see discussion above between paragraphs 84-117).

349) The Threat Abatement Plans relevant to the proposed Action are:

- a) Department of Sustainability, Environment, Water, Population and Communities. (2011). Threat abatement plan for the biological effects, including lethal toxic ingestion, caused by cane toads. Canberra. Available from: <http://www.environment.gov.au/resource/threat-abatement-plan-biological-effects-including-lethal-toxic-ingestion-caused-cane-toads>.

- b) Department of the Environment (2024). Threat abatement plan for predation by feral cats. Canberra, ACT: Commonwealth of Australia. Available from: www.environment.gov.au/biodiversity/threatened/publications/tap/threat-abatement-plan-feral-cats. In effect under the EPBC Act from 24 December 2024.
- c) Department of the Environment and Energy (2016). Threat abatement plan for competition and land degradation by rabbits. Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/publications/tap/competition-and-land-degradation-rabbits-2016>.
- d) Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008). Threat abatement plan for predation by the European red fox. Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/publications/tap/predation-european-red-fox>.

350) These threat abatement plans are available at the links above. I have provided a discussion of threat abatement plans in respect of each listed threatened species and community to which the threat abatement plan is relevant (see discussion above in the Mandatory consideration section).

351) I considered all relevant recovery plans and threat abatement plans and concluded that approval of this action would not be inconsistent with the above obligations.

Conservation Advice

352) In deciding whether or not to approve the taking of the proposed action, I had regard to the following conservation advice:

- a) Department of the Environment. (2013). Approved Conservation Advice for the Brigalow (*Acacia harpophylla* dominant and co-dominant) ecological community. Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/028-conservation-advice.pdf>.
- b) DAWE [Department of Agriculture, Water and the Environment]. (2022). Conservation Advice for *Phascolarctos cinereus* (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory. Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/85104-conservation-advice-12022022.pdf>.
- c) DCCEEW (2022). Conservation Advice for *Petauroides volans* (Greater glider (southern and central)). Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/254-conservation-advice-05072022.pdf>.
- d) Department of the Environment (2015). Conservation Advice *Geophaps scripta scripta* Squatter pigeon (southern). Canberra: Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/64440-conservation-advice-31102015.pdf>.
- e) Department of Environment (2014). Conservation Advice for *Denisonia maculata* (Ornamental Snake). Canberra: Available from:

<http://www.environment.gov.au/biodiversity/threatened/species/pubs/1193-conservation-advice.pdf>.

- f) Department of the Environment and Energy (2019). Conservation Advice (including listing advice) for the Poplar Box Grassy Woodland on Alluvial Plains. Canberra: Department of the Environment and Energy. Available from:
<http://www.environment.gov.au/biodiversity/threatened/communities/pubs/141pb-conservation-advice.pdf>.

353) These approved conservation advices are available at the links above.

354) I had regard to the approved conservation advices relevant to the proposed action and gave consideration to the likely impacts of the proposed action on listed threatened species and endangered ecological communities. I determined that approval of this action would not be inconsistent with the conservation advices.

Bioregional plans - section 176(5)

355) I noted that the proposed action is not located within or near an area designated by a bioregional plan. I considered that there are no bioregional plans relevant to the proposed action.

Conditions of approval – section 134

356) I considered the likely scope and severity of the impacts to MNES, and the proposed avoidance and mitigation measures, and determined that it is likely the proposed action will result in residual significant impact to listed threatened species and ecological communities (section 18 and 18A) and a water resource (section 24D and 24E).

357) I also considered the conditions imposed by the Queensland Department of Environment, Tourism, Science and Innovation. I considered that the conditions described are not sufficient to manage the residual significant impacts to matters of national environmental significance resulting from the proposed action.

358) After consideration of the above, I considered that conditions under the EPBC Act are necessary or convenient to ensure the adequate protection or mitigation of damage to MNES resulting from the proposed action. As such, I imposed conditions to this project as detailed in the decision notice. The key conditions relating to protected matters have been discussed under each controlling provision.

359) The conditions of approval meet the section 134(1) tests as they are necessary for protecting, repairing, and mitigating damage to listed threatened species and ecological communities and a water resource, which are all matters protected by a provision of Part 3 for which the approval has effect.

Additional considerations for conditions

360) In accordance with section 134(4), in deciding whether to attach a condition to an approval, I must consider all of the following:

Any relevant conditions that have been imposed, or the Minister considers are likely to be imposed, under a law of a state or self-governing territory or another law of the Commonwealth on the taking of the action.

361) I noted that the Queensland EA for the proposed action sets out the conditions imposed for the proposed action by the Queensland Department of Environment, Tourism, Science and Innovation under the EP Act. I considered these conditions, to the extent they are relevant to MNES and was of the view that the conditions of approval are not inconsistent with the Queensland EA requirements. I have imposed conditions of approval to avoid duplication with the Queensland EA conditions and other relevant Queensland legislation.

s134(4)(aa) Information provided by the person proposing to take the action or by the designated proponent of the action

362) I took account of the documentation provided by the designated proponent and noted that the department took this information into account in drafting their recommendation. The proponent was given 10 business days to comment on the proposed decision and conditions of approval, and comments provided by the proponent were included in the final approval decision briefing package for my consideration.

s134(4)(b) The desirability of ensuring as far as practicable that the condition is a cost-effective means for the Commonwealth and the person taking the action to achieve the object of the condition.

I considered that the conditions are a cost-effective means of achieving their purpose.

Reasons for decision

363) In deciding whether or not to approve the taking of the proposed action, I took into account (among other matters) the principles of ecologically sustainable development as required under section 136(2)(a) of the EPBC Act, and the precautionary principle as required under section 391 of the EPBC Act.

364) Having taken into account matters required to be considered under the EPBC Act and in light of the findings in paragraphs 55 to 363, I decided to approve the taking of the proposed action, subject to conditions, for the purposes of sections 18, 18A, 24D and 24E of the EPBC Act.

365) The approval will be in effect for a period of 31 years to allow sufficient time for the completion of construction, operation and decommissioning, and for the implementation of measures to protect MNES.

name and position Declan O'Connor-Cox
Branch Head
Environment Assessments Queensland Branch

Signature 

date of decision 17/4/25

Annexure A – Relevant Legislation

Section 130 of the (EPBC Act) relevantly provides:

Basic rule

- 1) The Minister must decide whether or not to approve, for the purposes of each controlling provision for a controlled action, the taking of the action.

(1A) The Minister must make the decision within the relevant period specified in subsection (1B) that relates to the controlled action, or such longer period as the Minister specifies in writing.

Notice of extension of time

- (4) If the Minister specifies a longer period for the purposes of subsection (1A), he or she must:
 - a) give a copy of the specification to the person proposing to take the action; and
 - b) publish the specification in accordance with the regulations.

Section 131 of the EPBC Act relevantly provides:

- (1) Before the Minister (the Environment Minister) decides whether or not to approve, for the purposes of a controlling provision, the taking of an action, and what conditions (if any) to attach to an approval, he or she must:
 - a) inform any other Minister whom the Environment Minister believes has administrative responsibilities relating to the action of the decision the Environment Minister proposes to make; and
 - b) invite the other Minister to give the Environment Minister comments on the proposed decision within 10 business days.
- (2) A Minister invited to comment may make comments that:
 - a) relate to economic and social matters relating to the action; and
 - b) may be considered by the Environment Minister consistently with the principles of ecologically sustainable development.

This does not limit the comments such a Minister may give.

Section 131AA of the EPBC Act relevantly provides:

- 1) Before the Minister decides whether or not to approve, for the purposes of a controlling provision, the taking of an action, and what conditions (if any) to attach to an approval, he or she must:
 - a) inform the person proposing to take the action, and the designated proponent of the action (if the designated proponent is not the person proposing to take the action), of:
 - b) the decision the Minister proposes to make; and

- c) if the Minister proposes to approve the taking of the action – any conditions the Minister proposes to attach to the approval; and
 - d) invite each person informed under paragraph (a) to give the Minister, within 10 business days (measured in Canberra), comments in writing on the proposed decision and any conditions.
- 2) If the Minister proposes not to approve, for the purposes of a controlling provision, the taking of the action, the Minister must provide to each person informed under paragraph (1)(a), with the invitation given under paragraph (1)(b):
- a) a copy of whichever of the following documents applies to the action:
 - i) an assessment report;
 - ii) a finalised recommendation report given to the Minister under subsection 93(5);
 - iii) a recommendation report given to the Minister under section 95C, 100 or 105; and
 - iv) any information relating to economic and social matters that the Minister has considered; and
 - v) any information relating to the history of a person in relation to environmental matters that the Minister has considered under subsection 136(4); and
 - vi) a copy of any document, or part of a document, containing information of a kind referred to in paragraph 136(2)(e) that the Minister has considered.
- 3) The Minister is not required to provide under subsection (2):
- a) information that is in the public domain; or
 - b) a copy of so much of a document as in the public domain; or
 - c) in the case of information referred to in paragraph (2)(b) or (c) – any conclusions or recommendations relating to that information included in documents or other material prepared by the Secretary for the Minister.
- 6) In deciding whether or not to approve, for the purposes of a controlling provision, the taking of the action, the Minister must take into account any relevant comments given to the Minister in response to an invitation given under paragraph (1)(b).

Section 131A of the EPBC Act relevantly provides:

Before the Minister decides whether or not to approve, for the purposes of a controlling provision, the taking of an action, and what conditions (if any) to attach to an approval, he or she may publish on the Internet:

- a) the proposed decision and, if the proposed decision is to approve the taking of the action, any conditions that the Minister proposes to attach to the approval; and
- b) an invitation for anyone to give the Minister, within 10 business days (measured in Canberra), comments in writing on the proposed decision and any conditions.

Section 133 of the EPBC Act relevantly provides:

Approval

- 1) After receiving the assessment documentation relating to a controlled action, or the report of a commission that has conducted an inquiry relating to a controlled action, the Minister may approve for the purposes of a controlling provision the taking of the action by a person.

1A) If the referral of the proposal to take the action included alternative proposals relating to any of the matters referred to in subsection 72(3), the Minister may approve, for the purposes of subsection (1), one or more of the alternative proposals in relation to the taking of the action.

Content of approval

- 2) An approval must:
 - a) be in writing; and
 - b) specify the action (including any alternative proposals approved under subsection (1A)) that may be taken; and
 - c) name the person to whom the approval is granted; and
 - d) specify each provision of Part 3 for which the approval has effect; and
 - e) specify the period for which the approval has effect; and
 - f) set out the conditions attached to the approval.

Persons who may take action covered by approval

2A) An approval granted under this section is an approval of the taking of the action specified in the approval by any of the following persons:

- a) the holder of the approval;
- b) a person who is authorised, permitted, or requested by the holder of the approval, or by another person with the consent or agreement of the holder of the approval, to take the action.

Notice of approval

- 3) The Minister must:
 - a) give a copy of the approval to the person named in the approval under paragraph 133(2)(c); and
 - b) provide a copy of the approval to a person who asks for it (either free or for a reasonable charge determined by the Minister).

Notice of refusal of approval

- 7) If the Minister refuses to approve for the purposes of a controlling provision the taking of an action by the person who proposed to take the action, the Minister must give the person notice of the refusal.

Section 134 of the EPBC Act relevantly provides:

Condition to inform persons taking action of conditions attached to approval

1A) An approval of the taking of an action by a person (the first person) is subject to the condition that, if the first person authorises, permits, or requests another person to undertake any part of the action, the first person must take all reasonable steps to ensure:

- a) that the other person is informed of any condition attached to the approval that restricts or regulates the way in which that part of the action may be taken; and
- b) that the other person complies with any such condition.

For the purposes of this Chapter, the condition imposed by this subsection is attached to the approval.

Generally

- 1) The Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:
 - a) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
 - b) repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage has been, will be or is likely to be caused by the action).

Conditions to protect matters from the approved action

- 2) The Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:
 - a) protecting from the action any matter protected by a provision of Part 3 for which the approval has effect; or
 - b) repairing or mitigating damage that may or will be, or has been, caused by the action to any matter protected by a provision of Part 3 for which the approval has effect.

This subsection does not limit subsection (1).

Examples of kinds of conditions that may be attached

- 3) The conditions that may be attached to an approval include:
 - aa) conditions requiring specified activities to be undertaken for:
 - i) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
 - ii) repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage may or will be, or has been, caused by the action); and

- ab) conditions requiring a specified financial contribution to be made to a person for the purpose of supporting activities of a kind mentioned in paragraph (aa); and
- a) conditions relating to any security to be given by the holder of the approval by bond, guarantee or cash deposit:
 - i) to comply with this Act and the regulations; and
 - ii) not to contravene a condition attached to the approval; and
 - iii) to meet any liability of a person whose taking of the action is approved to the Commonwealth for measures taken by the Commonwealth under section 499 (which lets the Commonwealth repair and mitigate damage caused by a contravention of this Act) in relation to the action; and
 - b) conditions requiring the holder of the approval to insure against any specified liability of the holder to the Commonwealth for measures taken by the Commonwealth under section 499 in relation to the approved action; and
 - c) conditions requiring a person taking the action to comply with conditions specified in an instrument (including any kind of authorisation) made or granted under a law of a State or self-governing Territory or another law of the Commonwealth; and
 - d) conditions requiring an environmental audit of the action to be carried out periodically by a person who can be regarded as being independent from any person whose taking of the action is approved; and
 - e) if an election has been made, or is taken to have been made, under section 132B in respect of the approval – conditions requiring:
 - f) an action management plan to be submitted to the Minister for approval, accompanied by the fee (if any) prescribed by the regulations; and
 - g) implementation of the plan so approved; and
 - h) conditions requiring specified environmental monitoring or testing to be carried out; and
 - i) conditions requiring compliance with a specified industry standard or code of practice; and
 - j) conditions relating to any alternative proposals in relation to the taking of the action covered by the approval (as permitted by subsection 133(1A)).

This subsection does not limit the kinds of conditions that may be attached to an approval.

Certain conditions require consent of holder of approval

3A) The following kinds of condition cannot be attached to the approval of an action unless the holder of the approval has consented to the attachment of the condition:

- a) a condition referred to in paragraph (3)(aa), if the activities specified in the condition are not reasonably related to the action;
- b) a condition referred to in paragraph (3)(ab).

3B) If the holder of the approval has given consent, for the purposes of subsection (3A), to the attachment of a condition:

- a) the holder cannot withdraw that consent after the condition has been attached to the approval; and
- b) any person to whom the approval is later transferred under section 145B is taken to have consented to the attachment of the condition and cannot withdraw that consent.

Conditions attached under paragraph (3)(c)

(3C) A condition attached to an approval under paragraph (3)(c) may require a person taking the action to comply with conditions specified in an instrument of a kind referred to in that paragraph:

- a) as in force at a particular time; or
- b) as is in force or existing from time to time;

even if the instrument does not yet exist at the time the approval takes effect.

Considerations in deciding on condition

- 4) In deciding whether to attach a condition to an approval, the Minister must consider:
 - a) any relevant conditions that have been imposed, or the Minister considers are likely to be imposed, under a law of a State or self-governing Territory or another law of the Commonwealth on the taking of the action; and
 - aa) information provided by the person proposing to take the action or by the designated proponent of the action; and
 - b) the desirability of ensuring as far as practicable that the condition is a cost effective means for the Commonwealth and a person taking the action to achieve the object of the condition.

Effect of conditions requiring compliance with conditions specified in another instrument

4A) If:

- a) a condition (the principal condition) attached to an approval under paragraph (3)(c) requires a person taking the action to comply with conditions (the other conditions) specified in an instrument of a kind referred to in that paragraph; and
- b) the other conditions are in excess of the power conferred by subsection (1);

the principal condition is taken to require the person to comply with the other conditions only to the extent that they are not in excess of that power.

Validity of decision

- 5) A failure to consider information as required by paragraph (4)(aa) does not invalidate a decision about attaching a condition to the approval.

Section 136 of the EPBC Act relevantly provides:

Mandatory considerations

- 1) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must consider the following, so far as they are not inconsistent with any other requirement of this Subdivision:
 - a) matters relevant to any matter protected by a provision of Part 3 that the Minister has decided is a controlling provision for the action;
 - b) economic and social matters.

Factors to be taken into account

In considering those matters, the Minister must take into account:

- a) the principles of ecologically sustainable development; and
- b) the assessment report (if any) relating to the action; and

ba) if Division 3A of Part 8 (assessment on referral information) applies to the action – the finalised recommendation report relating to the action given to the Minister under subsection 93(5); and

bc) if Division 4 of Part 8 (assessment on preliminary documentation) applies to the action:

- i) the documents given to the Minister under subsection 95B(1), or the statement given to the Minister under subsection 95B(3), as the case requires, relating to the action; and
- ii) the recommendation report relating to the action given to the Minister under section 95C; and

c) if Division 5 (public environment reports) of Part 8 applies to the action:

- i) the finalised public environment report relating to the action given to the Minister under section 99; and
- ii) the recommendation report relating to the action given to the Minister under section 100; and

ca) if Division 6 (environmental impact statements) of Part 8 applies to the action:

- i) the finalised environmental impact statement relating to the action given to the Minister under section 104; and
- ii) the recommendation report relating to the action given to the Minister under section 105; and

d) if an inquiry was conducted under Division 7 of Part 8 in relation to the action – the report of the commissioners; and

e) any other information the Minister has on the relevant impacts of the action (including information in a report on the impacts of actions taken under a policy, plan, or program under which the action is to be taken that was given to the Minister under an agreement under Part 10 (about strategic assessments)); and

- f) any relevant comments given to the Minister in accordance with an invitation under section 131 or 131A; and
- g) if a notice relating to the action was given to the Minister under subsection 132A(3) – the information in the notice.

Person's environmental history

- 4) In deciding whether or not to approve the taking of an action by a person, and what conditions to attach to an approval, the Minister may consider whether the person is a suitable person to be granted an approval, having regard to:
 - a) the person's history in relation to environmental matters; and
 - b) if the person is a body corporate – the history of its executive officers in relation to environmental matters; and
 - c) if the person is a body corporate that is a subsidiary of another body or company (the parent body) – the history in relation to environmental matters of the parent body and its executive officers.

Minister not to consider other matters

- 5) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must not consider any matters that the Minister is not required or permitted by this Division to consider.

Section 139 of the EPBC Act relevantly provides in part:

- 2) If:
 - a) the Minister is considering whether to approve, for the purposes of a subsection of section 18 or section 18A, the taking of an action; and
 - b) the action has or will have, or is likely to have, a significant impact on a particular listed threatened species or a particular listed threatened ecological community;
 - c) the Minister must, in deciding whether to so approve the taking of the action, have regard to any approved conservation advice for the species or community.

Section 391 of the EPBC Act relevantly provides:

- (1) *Taking account of precautionary principle* The Minister must take account of the precautionary principle in making a decision listed in the table in subsection (3), to the extent he or she can do so consistently with the other provisions of this Act.

Precautionary principle

- (2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.

Annexure B – List of attachments attached to decision brief

- A: Copy of Proposed Approval Decision Brief – SIGNED
 - A1: Brief
 - A2: Attachment A: Recommendation Report
 - A3: Attachment B: Proposed approval decision notice
 - A4: Attachment C: Public Environment Report
 - A5: Attachment D: Referral Briefing Package
 - A6: Attachment E: Statutory Documents
 - A7: Attachment F: Letters to relevant parties
- B: Letter to the Proponent
- C: Letter to Queensland Department of Science Environment and Innovation (DESI)
- D: Letter to Federal Resources Minister
- E: Letter for RFI to Proponent
- F: Stop clock Letter to Proponent
 - A8: Attachment G: PMST report
 - A9: Attachment H: Infringement History
 - A10: Attachment I: Advisory documents and guidelines
- G: Responses to invitation for comment on proposed decision
 - B1: Final Decision Comments from Proponent on Decision Notice
 - B2: Final Decision comments from Department of Industry, Science and Resources
 - B3: Final Decision Comments from DETSI
- H: Notice of decision - **FOR SIGNATURE**
- I: Track changes on proposed Notice of decision – NOT FOR SIGNATURE
- J: Letters to relevant parties - **FOR SIGNATURE**
 - E1: Proponent - Queensland Coking Coal Pty Ltd
 - E2: Commonwealth Minister for Resources and Northern Australia
 - E3: Queensland Department of Environment, Tourism, Science and Innovation
- K: Updated statutory document check from Biodiversity Division
- L: *Threat abatement plan for predation by feral cats 2024, DCCEEW*