

**Statement of Reasons for a Decision on Controlled Action Under the *Environment Protection and Biodiversity Conservation Act 1999***

I, KYLIE CALHOUN, Branch Head, Department of Climate Change, Energy, the Environment and Water (the department), delegate for the Minister for the Environment and Water (the Minister), provide the following statement of reasons for my decision of 13 June 2024, under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), that the proposed action by Crimson Metals Pty Ltd (the proponent) to expand and operate the Mount Gibson Gold Mine (EPBC 2023/09745), is a controlled action under the EPBC Act, and the controlling provisions are sections 18 and 18A (listed threatened species and communities).

Legislation

- 1) Extracts of the EPBC Act relevant to my decision are set out in Annexure A.

Background*Description of the proposed action (including location)*

- 2) On 27 February 2024, the department received a valid referral for the proposed action. The proposed action was referred by the proponent and is the expansion and operation of the existing mine at Mount Gibson. The mine is currently in care and maintenance and is not operational. The proposed action is located within the Shire of Yalgoo, Western Australia, 280 km north-east of Perth, WA.
- 3) The referral documentation states the proposed action consists of a 1,561.5 ha disturbance footprint (DF) within a 3,723 ha proposed action area (referred to as development envelope, DE), and includes the following key components:
 - a) seven open pits mined to depths of up to 220 m below the groundwater table;
 - b) processing and mine infrastructure (including administration, workshops, laydown areas, processing plant and product stockpiles);
 - c) mine haul/access roads;
 - d) integrated Waste Landform (IWL), which includes Waste Rock Landform and Tailings Storage Facility (TSF). The IWL will have a final elevation of 372 m (+/-20 m) Australian Height Datum (AHD), maximum 15° slopes and back-sloped 20m wide berms at up to 20 m vertical intervals; and
 - e) topsoil stockpiles.
- 4) The referral documentation states substantial mining occurred in the past and historical disturbance and infrastructure remain in the area. The preexisting mining activities cover an area of approximately 700 ha. The proposed action will reuse some of the preexisting facilities.

- 5) According to the referral documentation, the proposed action is expected to process five million tonnes of ore per annum (Mtpa) over a 12-year life of mine, with a run of mine (ROM-mined material before processing) production rate of 5.0 Mtpa, achieving an approximate 92% gold recovery and subsequent production of ore bars.
- 6) The referral documentation indicated that an exploration programme has taken place since 2022, however, I noted that there was a deficit of information on this program, and that the department will seek further information.

Description of the environment

- 7) The referral documentation states that the proposed action is located on unallocated crown land covered by six mining tenements issued under the *Mining Act 1978* (WA), held by the proponent, within the upper north-eastern corner of the Avon Wheatbelt Bioregion, specifically within the Merredin (AVW01) subregion. The proposed action is also located approximately 15km from the boundary of the neighbouring Yalgoo bioregion and shares some similar characteristics. The referral material identifies that the land on the south, east, and west of the DE is owned by the Australian Wildlife Conservancy (AWC).
- 8) According to the referral materials, on average, the general area is limited by water and receives 317 mm of rainfall annually, mostly between May and August. The site is located on a catchment divide and ranges between 320m AHD to 370m AHD, with some of the open pits mined up to 100 m below the surface and waste rock dumps along the western part of the site, 20-30 m high.
- 9) Historical disturbance at the DE consists of fire, mechanical and mining disturbance, and pastoral activities. Current groundwater levels are estimated to be 46-51 meters below ground level and there is approximately 3.4 Gigalitres (GL) in existing pit voids. The proposed action will require up to 5 GL per year of groundwater and will require dewatering of the open pits.
- 10) I noted that the following fauna habitat is present within the DF, the amounts of which were specified in correspondence with the proponent, in excellent to completely degraded condition:
 - 879.2 ha of mixed shrubland habitat, containing vegetation units dominated by *Acacia* sp. shrubland and heath, *Allocasuarina* sp. shrubland, or *Callitris columellaris* woodland, often with *Melaleuca* spp., *Eremophila* spp. and *Olearia* spp. mixed shrubland with scattered *Eucalyptus* spp. mallee. Associated with sandy clay loam and sandy loam plains.
 - 294.3 ha of Eucalypt woodland habitat, containing vegetation units dominated by *Eucalyptus loxophleba* (York Gum), *Eucalyptus salmonophloia* (Salmon Gum) or *Eucalyptus salubris* (Gimlet). Associated with clay loam and sandy clay loam plains and distributed in large patches.
 - 388 ha of previously cleared habitat occurs, containing vegetation units that have been cleared of vegetation but left for natural regeneration to occur. Regeneration was dominated by open *Acacia acuminata* regrowth.

Procedural history

- 11) On 27 February 2024:

- a) the department received a valid referral for the proposed action;
 - b) in accordance with section 74(3) of the EPBC Act, the referral was published on the department's website and public comments were invited for a period of 10 business days. Two submissions were received during the public comment period;
 - c) in accordance with section 74(1) of the EPBC Act, comments on the referral were invited for a period of 10 business days from the following Commonwealth Ministers having administrative responsibilities relating to the proposed action:
 - the Hon. Madeline King MP Minister for Resources and Minister for Northern Australia; and
 - the Hon. Linda Burney MP, Minister for Indigenous Australians.
 - d) in accordance with section 74(2) of the EPBC Act, comments on the referral were invited for a period of 10 business days from Mr Alistair Jones, the delegated contact for the Hon Reece Whitby, Western Australia Minister for Environment and Climate Action and for the WA Minister for Mines and Petroleum, the Hon William (Bill) Joseph Johnston MLA.
- 12) One Commonwealth Minister provided comments on the referral in a letter dated 6 March, received on 13 March 2024. The State Minister, through his delegate, Mr Alistair Jones, Director General of the Western Australian Department of Water and Environmental Regulation (DWER) provided a response in a letter dated 12 March 2024 and received the same date, regarding the proposed action's assessment status. I discuss these comments below in paragraphs 24-27.
- 13) On 13 March 2024, the department met with the proponent in relation to the proposed action. At this meeting the department advised the proponent that the proposal was likely to be a controlled action decision due to impacts on Listed Threatened Species and Communities (sections 18 and 18A). On 21 March 2024, my department had a further meeting with the proponent to discuss the matter. After this 21 March 2024 meeting, the proponent sought further information regarding the department's position on the classification of threatened species, in circumstances where there has been a recent taxonomic change. I discuss the taxonomic issue in more detail below in paragraphs 98-104.
- 14) On 20 May 2024, the department undertook additional consultation with the proponent, to provide the proponent with summaries of information that the department considered was relevant to its assessment of whether the referred action is a controlled action, and what Part 3 provisions (if any) are controlling provisions. This information was comprised of summaries of public comments (received during the statutory public comment period), internal expert advice on matters of national environmental significance, and expert advice and other publications prepared by the Australian Wildlife Conservancy (AWC).
- 15) On 22 May, the proponent notified the department that it had no response to the provided information.
- 16) On 13 June 2024, I determined, under section 75 of the EPBC Act that the proposed action was a controlled action, and that the controlling provisions for the action were sections 18 and 18A (listed threatened species and ecological communities) of the EPBC Act.

Evidence or other material on which my findings were based

17) In making my decision, I read and gave consideration to the referral decision brief (and its attachments) prepared by officers of the Department of Climate Change, Energy, the Environment, and Water (decision brief) which I signed on 13 June 2024. The documents attached to the decision brief are as follows:

- i) the referral, including attachments to the referral
- ii) EPBC Act Policy Statement – Significant Impact Guidelines 1.1 – Matters of National Environmental Significance.
- iii) The following EPA technical guidance:
 - a) EPA Technical Guidance- Flora and Vegetation Surveys
 - b) EPA Technical guidance- Terrestrial Vertebrate Fauna Surveys
- iv) Survey Guidelines for Australia’s Threatened Mammals 2011
- v) Staged developments- Split referrals: Section 74 of the EPBC Act
- vi) Protected Matters Search Tool (PMST) reports with no buffer and 5km buffer, dated 3 June 2024
- vii) Internal Weekly Protected Species and Communities report, 7 June 2024
- viii) Ministerial comments
- ix) Public comments
- x) Advice from the department’s internal Species Listing, Information and Policy Section regarding:
 - a) Southern whiteface (three instances)
 - b) Shield-back trapdoor spider (one instance)
 - c) Varnish Bush (one instance)
- xi) EPBC Conservation Advice and Recovery Plans for Threatened Ecological Communities (TECs) and Species:
 - a) Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt
 - b) Approved Conservation Advice - Appendices for the Eucalypt Woodlands of the Western Australian Wheatbelt
 - c) National Recovery Plan for Malleefowl *Leipoa ocellata*
 - d) *Eremophila viscida* (Varnish Bush) Conservation Advice
 - e) Varnish Bush (*Eremophila viscida*) Interim Recovery Plan 2003-2008
 - f) Approved Conservation Advice for *Idiosoma nigrum* (Shield-back Spider)
 - g) Conservation Advice for *Aphelocephala leucopsis* (Southern Whiteface)
 - h) Chuditch (*Dasyurus geoffroii*) National Recovery Plan
- xii. DRAFT National Recovery Plan for the Malleefowl (*Leipoa ocellata*) (September 2022)

- xiii. Correspondence and conversations with the proponent:
- a) Request for Statement of Reasons, 19 March
 - b) Confirmation of habitat type amounts, 2 April
 - c) File note - meeting with proponent, 21 March
 - d) Proponent response to opportunity to comment, 22 May
 - e) Correspondence regarding airstrip and split referral, 23 January 2024 and 27 November 2023.
 - f) Shared agenda for meeting on 13 March

xiv. Other information

- a) AWC Mt Gibson Wildlife Sanctuary Ecohealth Report 2021
 - b) AWC correspondence regarding Chuditch and other species, received April 20 2024
 - c) AWC mount Gibson wildlife sanctuary media release on drone tracking of Western Quolls at Mt Gibson Wildlife Sanctuary, accessed 26 March 2024
 - d) AWC Mount Gibson Wildlife Sanctuary media release on Chuditch relocations, dated 26 July 2023, accessed 26 March 2024
 - e) AWC media release on Chuditch at Mount Gibson Wildlife Sanctuary
 - f) Conservation systematics of the Shield-backed Trapdoor spiders of the nigrum-group (Mygalomorphae, Idiopidae, Idiosoma): integrative taxonomy reveals a diverse and threatened fauna from south-western Australia- Michael G. Rix, Joel A. Huey, Steven J.B. Cooper, Andrew D. Austin, Mark S. Harvey
- 18) I note that, although 'Assessment of Fauna Values' was submitted by the proponent as part of the referral following receipt of other referral documents by the Assessment section, I still considered this submission as part of the referral decision.
- 19) I decided that there was enough information provided to me to make a decision under section 75 of the EPBC Act.

Public consultation

- 20) I noted that the department received two public submissions on the referral through the public portal: one from the National Malleefowl Recovery Team (NMRT), and one from the WA Malleefowl Recovery Group (WAMRG).

Submission by NMRT

- 21) I noted that the submission received from the NMRT raised the following issues:
- a) General species information, including ecology, range, listing status, and threats.
 - b) That the proposed action may impact a locally significant Malleefowl population in an important region, and there is reported data providing evidence of a healthy breeding population.

- c) Clearing in the magnitude of the proposed action fits within the definition of an action that would cause significant impact, in that it would lead to a long-term decrease in the size of an important population of a threatened species and reduce the area of occupancy of an important population.
- d) That the action will have direct impacts via clearing of mounds and indirect impacts on Malleefowl presence and breeding via increased vehicle and plant movements.
- e) That the proposal does not give sufficient consideration to protection of surrounding areas, such as reporting sightings, and protecting known nest sites (whether active or inactive).
- f) that the proposal contains insufficient detail on how mined areas would be rehabilitated to reestablish preexisting flora and fauna species diversity, cover, and abundance.
- g) That the action area (referred here as DE) is located in a larger complex where important populations of Malleefowl are known to be extant.
- h) That the site and surrounding areas have comparatively high proportion of active nests as compared to a site 90km west, based on 2022 monitoring data from the National Malleefowl Monitoring Database (NMMD).
- i) That the site is core Malleefowl habitat.

Submission by the WAMRG

22) I noted that the submission by the WAMRG raised the following issues:

- a) It disagrees with the claim in the supporting documentation that the clearing almost 1,000 ha of largely pristine habitat of the Malleefowl will have no impact on their population. The WAMRG does not agree with the proponent's conclusion that the proposed action is not a controlled action.
- b) It has monitored Malleefowl over the last 13 years in the surrounding areas (Mt Gibson AWC Sanctuary, the Charles Darwin Reserve and the Extension Hill Iron Ore Mine). The percentage of active mounds (in the good years) in this area far surpasses any other area in the region. In 2022, these three sites had 78 active mounds of the 354 mounds monitored. In comparison, monitoring in the surrounding districts found only 16 active mounds of the 130 mounds monitored in the Remlap, Wubin, Latham and Dalwallinu district site. The WAMRG believe the area where the Mt Gibson Gold Project is proposed, is of great significance to the population viability of the Malleefowl as a whole.
- c) The *Mount Gibson Gold Project (MGGP) Environmental Management Plan* and associated Work Instructions, are deficient in monitoring and predator control requirements, and requires review and amendment.
- d) It recommends that, should the project be given approval, approval is conditional on extensive (6 months) camera monitoring of any mounds prior to removal to confirm absence of eggs, additional predator control and associated predator control effectiveness monitoring, and ongoing annual monitoring of all mounds to assist with the survival of the remaining Malleefowl and to assess any impacts that the proposal may have. Furthermore, they recommend that that approval conditions should require that monitoring occurs in accordance with National Malleefowl Monitoring Manual by monitors who have attended

training delivered by the WAMRG, and that annual monitoring data is provided to the NMMD and an annual report is submitted to State and Commonwealth government.

e) That residual impacts will occur and therefore offsets are required.

23) As I noted above, my department provided a summary of the comments from NMRT and WAMRG to the proponent for comment on 20 May 2024. I noted the proponent did not provide a response to this summary.

Comments from Commonwealth Ministers

24) On 6 March 2024, Geoscience Australia provided comment on the referral on behalf of the Hon. Madeline King MP Minister for Resources and Minister for Northern Australia.

25) I noted that the comment raised the following matters:

- a) As at December 2023, Capricorn Metals reported a total Mineral Resource for the Mount Gibson Gold Project of 104 tonnes (3.3 million ounces) which comprises less than 1% of Australia's Economic Demonstrated Resources of gold and less than 1% of Australia Inferred Resources of gold.
- b) The Mount Gibson Gold Project was acquired by Capricorn Metals in July 2021 and in June 2022 Capricorn's application for a mining lease was granted covering the areas required to develop the project.
- c) A maiden Ore Reserve estimate was announced in April 2023 following the results of a pre-feasibility study which also outlined a plan to produce 152,000 ounces of gold per annum.
- d) The deposit has been defined by drilling over an 8-kilometre strike length and to a depth of 950 m down-dip where it is still mineralised, therefore significant exploration potential remains at the project.
- e) Capricorn Metals Ltd is an Australian based gold producer headquartered in Perth, Western Australia. In addition to the Mount Gibson Project, the company operates the Karlawinda Gold Project located 65 km south-east of Newman in the Pilbara region of Western Australia which has been operational since June 2021.

Comments from State/Territory Ministers

26) On 12 March 2024, Mr Alistair Jones, the Director General of the WA DWER, provided comment on the referral. The comment raised the following matters:

- a) The Environmental Protection Authority (EPA) has not received a referral under Part IV of the *Environmental Protection Act 1986* (WA) (EP Act). Therefore, an accredited assessment is not able to be confirmed at this stage should this referral be considered to be a 'controlled action.'
- b) There are no active assessments under the Part IV of the EP Act for the area, with the area having undergone historical mining activities.
- c) There is a State offset area around the proposal related to a nearby proposal (Mummaloo Iron Ore Project, Ministerial Statement 943) and that some infrastructure (already existing) proposed for the Mount Gibson Gold Project is within this area. Any changes to

the offset area may require a replacement offset to be provided, which would be considered a significant residual impact.

- d) Impacts to Malleefowl nests and habitat, individuals of Varnish Bush, and potential clearing of WA Wheatbelt Woodlands have the potential to be significant.
 - e) The proponent has recently indicated to DWER it may require modifications to its nearby airstrip. Considering the current airstrip is within an area that is covered by a State offset and potential for MNES occurring in this area, such as Malleefowl, this might be of interest to the department when deciding whether or not the proposal is a controlled action.
- 27) In terms of the latter point, the proponent has indicated that it has not decided whether to proceed with the airstrip modification and will refer the modification separately if it decides, at a later point, to pursue this proposal.

Findings on material questions of fact

The proposed action is not part of a 'larger action'

- 28) Before determining whether the proposed action was a controlled action, I considered whether the proposed action was a component of a larger action under s 74A of the EPBC Act, and if so, whether I should accept the referral pursuant to s 74A(1) of the EPBC Act.
- 29) Section 74A(1) of the EPBC Act states that if the Minister (or me, as her delegate) is satisfied the action that is the subject of the referral is a component of a larger action the person proposes to take, the Minister (here, me as her delegate) may decide not to accept the referral. This is a discretionary decision and, as such, I am not obliged to exercise the power.
- 30) The *EPBC Act Policy Statement – Staged Developments – Split referrals: Section 74A of the EPBC Act* provides guidance on when the discretion should be exercised, and states that “[a] referred action that is part of a larger action can be refused only if there is a reasonable basis for doing so. The key question for the Minister is: does the splitting of the proposed action reduce the ability to achieve the objects of the Act?”
- 31) DWER provided information to the department that the proponent may require modifications to its nearby airstrip, which is located in an area that is covered by a state offset and potential for MNES occurring in this area. As discussed above, this information came to DEWR from the proponent.
- 32) However, the proponent advised the department through correspondence dated 23 January 2024 that, although its original project design included the expansion of an airstrip located to the west of the DE, it had not decided whether to construct the airstrip. The proponent confirmed it would separately refer the airstrip if it determined to construct it at a later date.
- 33) Having considered the information provided by the proponent and the uncertainty about the proponent’s plans for the airstrip, I accepted the department’s advice that the proposed action was not part of a larger action.
- 34) I also agreed with the department’s view that, due to uncertainty about the plans and the proponent’s awareness of the potential need to refer the airstrip once a decision is made, its absence from the current referral does not reduce the ability to achieve the objects of the Act.

The proposed action is a controlled action and sections 18 & 18A are controlling provisions

- 35) Section 67 of the EPBC Act provides that an action is a controlled action if the taking of the action, without the Minister's approval for the purposes of a provision of Part 3, would be prohibited by the provision (the controlling provision for the action).
- 36) As a delegate of the Minister for the Environment and Water, I was required under section 75(1) of the EPBC Act to decide whether the referred action is a controlled action, and which provisions of Part 3 (if any) are controlling provisions for the proposed action.
- 37) In accordance with section 75(2) of the EPBC Act, in making my decision, I considered, when relevant to do so, all adverse impacts the proposed action has, will have, or is likely to have on matters protected by each provision of Part 3 of the EPBC Act. I did not consider any beneficial impacts the proposed action has, will have or is likely to have on the matters protected by each provision of Part 3 of the EPBC Act.
- 38) In making my decision, I also considered information provided in the referral documentation, as well as all Commonwealth and State Ministerial comments and all public comments received on the referral.
- 39) Having regard to the information before me, and the matters relevant to my decision, for the reasons set out below, I agreed with the department's recommendation that the proposed action is a controlled action and sections 18 and 18A are controlling provisions for the action.

The proposed action will have or is likely to significantly impact on listed threatened species and a threatened ecological community

- 40) I considered the department's PMST report dated 3 June 2024, which identified 21 listed threatened species and 1 ecological community within 5 km of the DE. Specifically, the PMST indicated that a total of 7 threatened species are 'known' to occur and 4 matters (including the ecological community) are 'likely' to occur, while the remaining species 'may' occur.
- 41) Based on the location of the action, the likely habitat present in the DE, the content of the referral package and the advice of the department I considered impacts in relation to the following matters:
- a) Eucalyptus Woodlands of the Western Australian Wheatbelt Threatened Ecological Community (Wheatbelt TEC) – Critically endangered
 - b) Malleefowl (*Leipoa ocellata*) – Vulnerable
 - c) Varnish Bush (*Eremophila viscida*) – Endangered
 - d) Shield-backed Trapdoor Spider (*Idiosoma nigrum*) – Vulnerable
 - e) Southern Whiteface (*Aphelocephala leucopsis*) – Vulnerable
 - f) Chuditch, Western Quoll (*Dasyurus geoffroii*) – Vulnerable

Wheatbelt TEC- critically endangered

Protected matter ecology

- 42) I noted that wheatbelt TEC is dominated by a complex mosaic of approximately 30 eucalypt species with a tree or mallet form, including Salmon Gum and York Gum, typically over a diverse and highly variable understorey. It most commonly occurs in three Interim Biogeographic Regionalisation for Australia (IBRA) subregions: Avon Wheatbelt subregion AVW01 Merredin; Avon Wheatbelt subregion AVW02 Katanning; and Mallee subregion MAL02 Western Mallee. Jarrah Forest IBRA Bioregion is also included.
- 43) I noted that the key diagnostic characteristics for Wheatbelt TEC include: being located in the key bioregions (including subregions listed above at paragraph 42), where the vegetation has a minimum crown cover of 10%, has a native understorey and contains the key tree canopy species identified in the conservation advice.
- 44) I noted that areas considered critical to the survival of the WA Wheatbelt Woodland ecological community covers all patches that meet the key diagnostic characteristics and condition thresholds for the ecological community as defined in the conservation advice, plus buffer zones, particularly where this zone comprises surrounding native vegetation.
- 45) I noted the threats to the ecological community identified in the *EPBC Act Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt* (in this part of my statement, I will refer to this document as 'the conservation advice') and its appendices, include land clearing and associated fragmentation, salinity and water logging, weed invasion, and pest animal impacts.

Environment within and surrounding the proposed action area (DE)

- 46) I noted that the proposed action is located where Wheatbelt TEC is classified as 'likely' to occur in the department's PMST, dated 3 June, and is located in the Merredin IBRA Subregion.
- 47) The department considered, and I agreed that the flora survey was undertaken via an acceptable methodology (EPA survey guidelines).
- 48) I noted that the *Detailed Flora and Vegetation Assessment* states that vegetation units 12 and 13 were characteristic of Wheatbelt TEC species, canopy, and understorey requirements as listed in the conservation advice, particularly in terms of Salmon Gum and Gimlet, generally had crown covers greater than 10%, and were in good to excellent condition. I accepted that there were 31 TEC patches within and surrounding the survey area, and that 21 patches were of sufficient size, composition and condition to be eligible as TEC patches within the survey area. Overall, there is 348.8 ha of Wheatbelt TEC in the DE.
- 49) I acknowledged the proponent's view in the *EPBC Act Referral Supporting Document* that the vegetation in the DE shares similar characteristics to vegetation found within the Yalgoo IBRA bioregion approximately 10km northeast of the DE, but I agreed with the department's recommendation that the vegetation is characteristic of Wheatbelt TEC. I agreed with this because the proponent's *Detailed Flora and Vegetation Assessment* identifies that 21 patches of vegetation characteristic of Wheatbelt TEC occurs on-site.

Potential impacts

- 50) I noted that the proposed action will result in the loss 27.1 ha of Wheatbelt TEC in the DF, which is protected under the EPBC Act. I acknowledged the proponent's statement in the *EPBC Act Referral Supporting Document* that no single entire patch will be cleared or cleared to the

extent that they are below the size condition thresholds for the recognition as a patch of Wheatbelt TEC.

- 51) I noted that areas of vegetation that meet the diagnostic criteria for Wheatbelt TEC but which do not meet the minimum size criteria for protection under the EPBC Act are also likely to be cleared.
- 52) I noted that the action occurs immediately adjacent to areas of Wheatbelt TEC, within the 40 m buffer zone. I considered the conservation advice, which classifies the buffer zone as critical habitat, particularly where this comprises surrounding native vegetation. The department advised and I agreed that the action is likely to result in edge effects such as weed invasion, dust deposition and erosion, especially next to pits and stockpiles.
- 53) I noted that changes to runoff from disturbed areas (waste rock dumps, topsoil stockpiles, ROM pads, etc) may cause suspended sediment which has the potential to impact on surface water-related environments downstream of the proposed action.

Avoidance and mitigation

- 54) I noted that the DF has been designed to avoid and minimise the impact to Wheatbelt TEC including the clearing of whole patches. I noted that management actions relevant to Wheatbelt TEC are included in the environmental management plan (EMP), including weed prevention, undertaking targeted control of the invasive species *Rumex vesicarius* (Ruby Dock), total fire bans, and dust suppression and monitoring.
- 55) I noted that the hydrological study recommends measures to manage sediment-filled runoff and that the EMP states that recommended drainage infrastructure will be installed to divert surface flow from entering pits and water quality management measures will be undertaken. However, the department considered it unclear whether the recommended drainage measures exist for sediment-filled runoff as the proponent states they will seek approval for any activities that will result in sediment in water and monitor water quality as per what is required. I agreed with the department's advice that it is unclear whether the recommended drainage measures exist for sediment-filled runoff.

Conclusion

- 56) In making my decision, I considered the nature of the proposed action, the referral documentation, relevant recovery plans and the EPBC Act Policy Statement 1.1 Significant Impact Guidelines – Matters of National Environmental Significance. The department considered, and I agreed, that the action is likely to:
- reduce the extent of the ecological community;
 - adversely affect habitat critical to the survival of an ecological community; and
 - cause a substantial reduction in the quality or integrity of an occurrence of an ecological community.
- 57) I also agreed with the department's advice that even if the proponent's proposed avoidance and mitigation measures are implemented, the proposed action will likely still have consequential adverse impacts (direct and indirect) to Wheatbelt TEC and its critical habitat.

Therefore, I found, that the proposed action is likely to have a significant impact on Wheatbelt TEC.

Malleefowl (*Leipoa ocellata*) - vulnerable

Protected matter ecology

- 58) The Malleefowl is found in semi-arid to arid shrublands and low woodlands, especially those dominated by mallee and/or acacias. In Western Australia the species is also found in some shrublands dominated by acacia, and occasionally in woodlands dominated by eucalypts such as Wandoo (*E. wandoo*), Marri (*Corymbia calophylla*) and Mallet (*E. astringens*).
- 59) I noted that the National Recovery Plan Malleefowl *Leipoa ocellata* (in this part of my statement, I will refer to this document as the 'Recovery Plan') states that Malleefowl occur in a wide range of habitat types and habitat critical to survival is known only in broad terms.
- 60) I considered that, in terms of important populations:
- the Recovery Plan states that no particular population or general areas can be described as being of greater importance for the long-term survival of Malleefowl than any other; and
 - the Significant Impact Guidelines 1.1 states that an important population is one that "is necessary for a species' long-term survival and recovery" and "may include populations identified as such in recovery plans, and/or that are key source populations either for breeding or dispersal, and/or populations that are necessary for maintaining genetic diversity".
- 61) I noted that Malleefowl range over one to several square kilometres and renovate old mounds rather than construct new mounds each year, and that all mounds (active or inactive) are considered a potential site for breeding.
- 62) I noted the threats to Malleefowl relevant to this proposed action include clearing, habitat fragmentation, isolation of habitat, and predation by introduced species.

Environment within and surrounding the proposed action area (DE)

- 63) I noted that the department's PMST dated 3 June identified the proposed action is located where the Malleefowl is 'likely' to occur. I noted that the proponent identified in the referral materials that the Mixed Shrubland Habitat and 'secondary habitat' (Eucalypt Woodland) are relevant habitat for the Malleefowl.
- 64) I noted that the Malleefowl surveys were conducted in a manner consistent with the guidance provided by the NMRT.
- 65) I noted that the proponent identified in the referral materials:
- a) up to 879.2 ha of mixed shrubland habitat and 294.3 ha of secondary habitat (Eucalypt Woodland) in the DF is suitable for use by Malleefowl. I noted that this 'secondary habitat' was found to support 5 inactive mounds in the eucalypt woodland habitat within and beyond the study area for the *Basic and Targeted Fauna Survey*.
 - b) 22 mounds (of all activity status) were found in the DE, with most found in the Mixed Shrubland Habitat; and

- c) 10 active mounds were found in the survey by Biota, and all were in the Mixed Shrubland Habitat type.
 - d) there are 2 active mounds and 9 inactive mounds in the DF. I noted that a Malleefowl was also sighted to the west of the DF, and Malleefowl tracks were sighted at almost every surveyed location.
- 66) I acknowledged that Malleefowl may utilise all habitats within the survey area for multiple functions, for example, for foraging and movement through the landscape, as suggested in the *Assessment of Fauna Values*.
- 67) I noted the public comments received from NMRT and WAMRG, which both expressed the view that the Malleefowl that occur in the DE and surrounds are of great significance to the population viability of the whole species, due to higher percentage of active nest sites as compared to surrounding areas. On 20 May 2024, my department provided a summary of these public comments to the proponent for comment, and I noted that the proponent had no response.
- 68) Therefore, I agreed with the department that the development envelope supports a Malleefowl population and is likely to be important for breeding, foraging and movement.

Potential impacts

- 69) I noted that the proposed action will directly clear 879.2 ha of Malleefowl 'mixed shrubland' habitat as well as 294.3 ha of the 'Eucalyptus Woodlands' habitat type, shown to support Malleefowl breeding.
- 70) I noted that the proposed action will clear two active mounds and recently-used inactive mounds at the time of the 2022 Malleefowl survey. I noted that the use of Malleefowl mounds may fluctuate year to year and as Malleefowl are known to revisit and reuse old mounds. On that basis, I considered all mounds could support breeding.
- 71) I considered that habitat loss will reduce availability of foraging habitat that supports successful breeding activity and chick survivorship of the local population.
- 72) I noted that scats and tracks recorded in the *Fauna Values Assessment* indicated the presence of foxes and cats on site. The department considered and I agreed that removal of habitat and ongoing disturbance is likely to increase the vulnerability of Malleefowl to predators.

Avoidance, mitigation, and management measures

- 73) I noted that the proponent has designed the action to use previously disturbed mine areas and preexisting infrastructure and roads, and that the proponent intends to control the risks to Malleefowl by implementing management measures including inductions for fauna management, restrictions on handing, speed limits, feral predator control programmes, staged clearing, and fauna monitoring and survey programmes.
- 74) I noted that specific fauna management measures include, amongst other measures, a commitment to not clear Malleefowl mounds during breeding season without prior assessment of mound activity, in accordance with the National Malleefowl Monitoring Manual.

Conclusion

75) In making my decision, I considered the nature of the proposed action, the referral documentation, relevant recovery plans, advice from Malleefowl recovery groups, and the *EPBC Act Policy Statement – Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*. I considered that there is a real chance or possibility that the proposed action will:

- lead to a long term decrease in the size of an important population;
- reduce the area of occupancy of an important population;
- fragment an existing important population into two or more populations;
- Disrupt the breeding cycle of an important population; and
- modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

76) I considered that because of the direct impact to the species and its habitat, the management measures proposed by the proponent are unlikely to reduce the impact of this action to below significant. Therefore, I found the proposed action is likely to have a significant impact on endangered Malleefowl.

Varnish Bush (*Eremophila viscida*) - endangered

Protected matter ecology

77) I noted that the Varnish Bush is a large, erect shrub known to recruit from the seedbank or sprout from disturbed root systems or woody organs after fire.

78) The species is endemic to south WA and has a historical range of some 290 km between Latham, Koorda, Carnamah, Ballidu, Pindar and Merredin. It prefers areas that are associated with granite and salt lake systems, and its preferred habitat is brown, sandy-loam or red brown clay-loam soils, in open woodland in association with York Gum and scrub vegetation.

79) I noted that the Varnish Bush (*Eremophila viscida*) Interim Recovery Plan 2003-2008 (in this part of my statement I will refer to this document as the 'recovery plan'):

- Is still in place, as confirmed by line area advice;
- identifies that all known habitat is habitat critical and all populations are important for the species survival;
- defines critical habitat as the area of occupancy of known populations, remnant vegetation that surrounds and links populations, additional occurrences of similar habitat that may have contained the species in the past, and the local catchment for surface and ground waters that provide the ephemeral creekline habitat for the species.

80) I noted that the recovery plan also identifies areas of similar habitat within 200 m of known populations as critical habitat, but that the recovery plan addendum excludes this zone.

81) I noted that the species is threatened by poor recruitment through unsuitable disturbance regimes, weeds, salinity and waterlogging, silting, erosion, inappropriate fire regimes, habitat loss and fragmentation.

Environment within and surrounding the proposed action area (DE)

- 82) The *Detailed Flora and Vegetation Assessment* states two Varnish Bush individuals were found, 2 meters apart, on sandy loam soils over granite, on the eastern side of the DF. I noted they are located immediately adjacent to the proposed locations of the waste rock dump and between areas of topsoil stockpiles and haulage/access roads specified in the *EPBC Act Referral Supporting Document*.
- 83) The area surrounding this population was subject to target searching using 20 m wide transects both within and outside of the DF, but no additional plants were detected. The department considered, and I agreed, that this survey effort was satisfactory.
- 84) I noted that the plants were located in vegetation unit 19, which was described in the *Detailed Flora and Vegetation Assessment* as suffering impacts from water stress and drought.
- 85) I also noted that:
- According to the *Detailed Flora and Vegetation Assessment*, the WA herbarium records indicate that these individuals are 65km away from the nearest recorded specimen, and that this location represents an extension of their range.
 - The Recovery Plan identifies 16 other populations that are known to occur, all of which are critical to the survival of the species.
- 86) I agree with the Department's view that the referral documentation does not satisfactorily explain how this population came to be present, the suitability (or otherwise) of the nearby habitat, or the long-term future of this population. I agreed with the department's conclusions from the survey data that that the occupied and surrounding habitat may be consistent with 'suitable habitat' as outlined in the conservation advice for Varnish Bush.

Potential impacts

- 87) I noted that the action will not remove the two plants, but clearing for the topsoil stockpile areas and the waste rock dump will remove potential similar habitat nearby.
- 88) I noted that poor recruitment is a threat to the species. I acknowledged the proponent's view in the *Detailed Flora and Vegetation Assessment* that the plants are 'mature and in poor condition' and likely flourished after fire in 2002. The department considered and I agreed that it is possible that the species could recruit from the topsoil in the surrounding area, and that this could support natural recruitment. I also accepted the department's advice that natural recruitment of this species may rely on fire and that conditions to enable recruitment may not occur during the life of the mine due to fire suppression measures.
- 89) I noted that suitable habitat surrounding the population may experience indirect impacts of mining operations via exposure to feral grazers, weed invasion, dust deposition and saline overspray, which may threaten plant health and habitat quality.

Avoidance and mitigation measures

- 90) I noted that the DF has been designed specifically to avoid disturbing the two individuals of this species.
- 91) I noted that the proponent will establish 50m protection buffers around the two individuals and that other vegetation management measures are explained in the EMP. The department

considered and I agreed that the 50 m buffer zone may not be large enough to sufficiently protect the plant, and its suitable habitat, from indirect impacts.

Conclusion

92) In making my decision, I considered the nature of the proposed action, the referral documentation, relevant recovery plans, and the EPBC Act Policy Statement – Significant Impact Guidelines 1.1 – Matters of National Environmental Significance. When applying these guidelines to Varnish Bush, I considered that the action is likely to:

- reduce the area of occupancy of a species; and
- modify, destroy remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

93) The department considered and I agreed that, even if the proposed avoidance and mitigation measures are implemented, notable and consequential impacts to this important population and its habitat will still occur.

94) Therefore, I found that the proposed action is likely to have a significant impact on the endangered Varnish Bush.

Shield-backed Trapdoor Spider (Idiosoma nigrum) - vulnerable

Protected matter ecology

95) I noted that the Shield-backed Trapdoor Spider typically inhabits clay soils of eucalypt woodlands and acacia vegetation and relies heavily on leaf-litter and twigs to build its burrow.

96) I noted that the Approved Conservation Advice for *Idiosoma nigrum* (shield-back spider) (in this part of my statement, I will refer to this document as the ‘conservation advice’) indicates that this species can be found in three locations, including one location which consists of several severely fragmented populations in the central and northern wheatbelt. The second and third locations are at Jack Hills and Weld Range, two isolated populations approximately 200 km further north, in more arid areas.

97) I noted the definition of critical habitat in the *significant impact guidelines 1.1*, including areas necessary for maintaining genetic diversity and long-term evolutionary development. I noted that the main threats to the species are habitat fragmentation, clearing, and disturbance from mining (dust pollution and vibration).

Department position on the species listing in light of recent taxonomic changes to Idiosoma nigrum.

98) I noted that on 14 March 2024, the department sought advice from the Species Listing Information and Policy section, a specialist area within the department regarding the department’s position on the classification for the shield-back trapdoor spider.

99) The department sought this specialist advice as the referral documentation identified that the species within the DE is most likely the Lake Goorly Shield-back Trapdoor Spider (*Idiosoma kopejtkorum*) or the Ornate Shield-backed Trapdoor Spider (*Idiosoma formosum*) and describes them both unlisted species separate to the EPBC-listed Shield-back trapdoor spider.

The department advised that the proponent did not consider these two taxa were subject to assessment under the EPBC Act.

- 100) I noted that while one of these above-mentioned species (*I.kopejtkorum*) was once considered Shield-backed Trapdoor Spider (*Idiosoma nigrum*), research by Rix et al (2018) has subsequently scientifically split *Idiosoma nigrum* into five novel taxa.
- 101) I considered the department's specialist advice, which stated that any potentially novel or split taxa are treated as part of the listed 'parent' taxon, and the new or split taxa are therefore considered protected under the EPBC Act, until formal listing assessment has been completed.
- 102) As such, the department considered, and I agreed, that:
- a) any of the novel or split taxa derived from *Idiosoma nigrum* located in the DF are considered to be, and are protected under the EPBC Act as the Shield-backed Trapdoor Spider (*Idiosoma nigrum*); and
 - b) impacts to any of the novel or split taxa derived from *Idiosoma nigrum* are considered to be impacts to Shield-backed Trapdoor Spider (*Idiosoma nigrum*) for the purposes of the EPBC Act.
- 103) On 20 May 2024, a summary of Species Listing and Policy Section advice was provided to the proponent for consideration and comment, and that on 22 May 2024, the proponent confirmed it had no comments on the summary.
- 104) To reflect the updated taxonomic information and the proponent's survey effort, in the following sections I use the new taxonomic names for the species where this is relevant to understanding and clarity.

Environment within and surrounding the proposed action area (DE)

- 105) I noted that the department's PMST report, dated 3 June 2024, identified that the species or its habitat is likely to occur in the DE, and that this is consistent with the conservation advice that identifies several fragmented populations in the central and northern wheatbelt.
- 106) I noted that the DE contained eucalypt woodlands and acacia vegetation (within the mixed shrubland habitat type), some of which are on clayey soils. I agreed with the department that the DE may contain suitable habitat for the species.
- 107) I noted that the proponent identified the presence of the Lake Goorly Shield-backed Trapdoor Spider (*I. kopejtkorum*) and the Ornate Shield-backed Trapdoor Spider (*I. formosum*) in its survey of the main DE. I noted that the *EPBC Act Referral Supporting Document* states further field surveys and DNA analysis determined that only the Lake Goorly Shield-backed Trapdoor Spider was found to be present both inside and outside the DF.
- 108) I noted that surveys were conducted in the eucalypt woodlands and mixed shrubland habitat types. These surveys confirmed the presence of twelve *Idiosoma sp.* burrows in the eucalypt woodlands in the wider survey area, nine of which are located in the development envelope. I also noted there was a spider record adjacent to the southern-most pit.

Potential impacts

- 109) I agreed with the department that the proposed action will result in habitat loss through the clearing of eucalypt woodland and mixed shrubland habitat likely used for breeding, burrowing, and foraging, totalling 1173.5 ha.
- 110) I agreed with the department that disturbance (eg vibration) and dust from the mine pit expansion and other activities will reduce the quality of the habitat in the DE. Further, I agreed that the proposed action may result in changes in salinity and altered hydrology due to changes in vegetation structure and soil composition that may adversely affect the ability of *I. nigrum* to forage, burrow and breed.
- 111) I noted that the conservation advice states populations in the central and northern wheatbelt are severely fragmented. The department considered and I agreed that the proposed action is likely to further fragment habitat supporting a population. The department further considered, and I agreed, given that suitable habitat for the species is present within the DE and the limitations of the proponent's survey, it is possible that other members of the five novel or split Shield-backed Trapdoor Spider taxa may be present.

Avoidance and mitigation

- 112) I noted that the proponent did not provide measures to avoid, mitigate, and manage the impacts to this species, or for the five novel or split taxa.

Precautionary principle

- 113) The precautionary principle is that a 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.
- 114) The department considered, and I agreed, that the information provided by the proponent did not rule out the possibility that the proposed action would have a significant impact on the Shield-backed Trapdoor Spider.
- 115) The department advised, for the following reasons, that I apply the precautionary principle in deciding whether the proposed action is likely to have a significant impact on the Shield-backed Trapdoor Spider:
- the impacts of the proposed action are consistent with the threats to the species discussed in the conservation advice; and
 - there is substantial uncertainty concerning population numbers and the species' presence and use of habitat within the DE;
- 116) I accepted the department's advice that I apply the precautionary principle.

Conclusion

- 117) The Shield-backed Trapdoor Spider was not assessed to the extent that it is known under the EPBC Act. Given the limitations of the survey effort and the absence of any avoidance and mitigation measures, the department considered, and I agreed that the proponent has not provided information that would demonstrate that there are no likely significant impacts on the Shield-backed Trapdoor Spider. Taking a precautionary approach, the department recommended and I agreed that the species is likely to be present.

118) In making my decision, I considered the scale and nature of the proposed action, the referral documentation, relevant conservation advice and the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines - Matters of National Environmental Significance*. When applying these guidelines to the vulnerable Shield-backed Trapdoor Spider, and taking a precautionary approach, I considered that the action is likely to:

- adversely affect habitat critical to the survival of the species; and
- reduce the area of occupancy of an important population, through the reduction of habitat known to be capable of supporting the species.

119) Therefore, I found that the proposed action is likely to have a significant impact on the vulnerable Shield-backed Trapdoor Spider.

120) This is consistent with the application of the precautionary principle as described above.

Southern Whiteface (Aphelocephala leucopsis) - vulnerable

Protected matter ecology

121) I noted that the Southern Whiteface is a small bird that occurs across most of mainland Australia south of the tropics. One of the 2 subspecies *A. l. castaneiventris* (South-West Southern Whiteface) is found in central and southern of Western Australia.

122) There is limited information available on the biology, ecology, movement patterns, population numbers and dynamics of this species, partly due to survey difficulties. This is particularly true for populations in remote areas. I was advised, based on the species' Conservation Advice that the Southern Whiteface is likely to have small home ranges and they may move into wetter areas outside their normal range in drought years. Alternatively, I was advised, based on advice from the Species Policy area, that the species more likely breeds up in response to rainfall and experiences population reduction in response to drought.

123) Breeding occurs from July to October throughout most of the species' range, but in arid areas they may breed outside of their usual season in response to sufficient rainfall and may not breed at all during drought.

124) I noted the definitions of critical habitat in the *significant impact guidelines 1.1*, as well as the critical habitat for the species as described in the *Conservation Advice for Aphelocephala leucopsis (Southern Whiteface)* (in this part of my statement, I will refer to it as the 'conservation advice'), which includes relatively undisturbed open woodlands and shrublands with an understorey of grasses and/or shrubs, habitat with low tree densities and an herbaceous understory litter cover which provides essential foraging habitat, and living and dead trees with hollows and crevices which are essential for roosting and nesting.

125) I noted the species is threatened by habitat loss, degradation, and climate change. I also noted that the area of occupancy for the species is known to be contracting and species numbers have declined by an estimated 30 – 50% every ten years since 1999, with this decline expected to continue. Population decline and range contraction are known with high confidence to be consistent trends.

Environment within and surrounding the proposed action area (DE)

- 126) I noted that the department's PMST indicates that the Southern Whiteface or its habitat is likely to occur within the boundary of the DE.
- 127) I noted that surveys that meet the criteria of 'detailed surveys' (in the EPA Technical Guidelines) were conducted to confirm the presence of the species, from 30 October to 7 November 2023.
- 128) I noted that no individuals were observed at the DE but three birds were opportunistically observed foraging 8km away in habitat described as a mixture of dense shrubs and open spaces supporting low shrubs and herbs in Eucalypt Woodland. I noted that the proponent stated in the *Fauna Values Assessment* that it considers Eucalypt Woodland to be the more suitable habitat for the species than other habitat types.
- 129) I noted that the DF contained suitable habitat according to the *EPBC Act Referral Supporting Document*, and that most vegetation in the survey area was in 'excellent' condition with little disturbance.
- 130) I acknowledged the proponent stated in the *Fauna Values Assessment*, that the 'Eucalypt Woodland' habitat is the 'most-likely' for habitat for the species, but generally lacks the low shrub and herb stratum that is preferred by the species. The proponent suggested in that document that the Southern Whiteface may occur only as individuals in small numbers dispersing from more favoured habitat outside the survey area nearby. The department disagreed with these statements, and I agreed with the department, as:
- the proponent has not clarified why the Shrubby Callitris Woodland and Acacia Melaleuca Shrubland, is less suitable or not suitable in this instance. According to the AWC, this habitat is known to support the species in the surrounding area; and
 - habitat and subsequent preference by a species is dynamic over space and time and habitat 'generally' only able to support dispersal, at different times, may have the capacity to support other habitat uses.
- 131) The department considered and I agreed that several factors may have impacted the survey:
- the survey was conducted between 30 October 2023 and 7 November 2023, which is outside the normal breeding period for the Southern Whiteface. The breeding period for Southern whiteface is July to October.
 - the Southern Whiteface is more detectible when breeding
 - outside of the normal breeding seasons, the species is less vocal, forms small flocks and may move out of their territory.
 - the *Fauna Values Assessment* noted that conditions were dry at the time of the survey and rainfall appeared to have been poor for at least the previous year, which means the species is unlikely to have been breeding outside of their normal season in response to rainfall; and
 - specialist species advice states the species may experience drought-related population reductions and may not have been abundant at the site.
- 132) I noted that the species is regularly detected in small numbers in the surrounding Mount Gibson Wildlife Sanctuary, according to information my department sought from the AWC. I

noted that on 20 May 2024, my department provided the proponent with a summary of the information provided by AWC. I noted that the proponent did not provide a response to this summary.

- 133) The department considered, and I agreed that it is likely that the Southern Whiteface is present within the DE and that suitable habitat for the species also exists in the DE.

Potential impacts

- 134) I noted that in the *Assessment of Fauna Values*, the proponent did not consider the action would have significant impacts on the species. I agreed with the department that the proposed action would result in the loss of 1173.5 ha of vegetation that may support Southern Whiteface habitat.
- 135) I also noted that the action may result in the reduced potential use of the area by Southern Whiteface due to disturbance and increase in feral predator movement due to the clearing.

Avoidance and mitigation

- 136) I noted that the proponent did not consider the action would have a significant impact on the species. The proponent therefore did not provide measures to avoid, mitigate, and manage the impacts to the Southern Whiteface. I noted that its habitat may be partially covered by other avoidance and mitigation measures in the EMP, such as those for Wheatbelt TEC. However, I further noted that the EMP assigns different priority to impact avoidance and mitigation for threatened plants and ecological communities, so the potential Southern Whiteface habitat that is not classified as Wheatbelt TEC is not subject to the same impact minimisation efforts.

Precautionary principle

- 137) I noted that the precautionary principle is that a 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.
- 140) The department considered, and I agreed, that the proponent has not provided information that would demonstrate that there are no likely significant impacts on Southern Whiteface.
- 141) The department advised, for the following reasons, that I apply the precautionary principle in deciding whether the proposed action is likely to have a significant impact on Southern Whiteface:
- the impacts of the proposed mine are consistent with the threats to the species discussed in the conservation advice; and
 - there is substantial uncertainty concerning the biology, ecology, population numbers and population dynamics of the species and the species' presence and use of habitat within the DE.
- 138) I accepted the department's advice that I apply the precautionary principle.

Conclusion

- 139) Based on the information provided, the department considered and I agreed the proposed action area contains suitable habitat within the likely range of the Southern Whiteface. I

considered adverse impacts to the species to be likely until further information has been provided to confirm otherwise. The department recommended, and I agreed, that the species is likely to be present until further information has been provided to confirm otherwise.

140) In making my decision, I considered the scale and nature of the proposed action, the referral documentation, relevant conservation advice and the EPBC Act Policy Statement 1.1 Significant Impact Guidelines - Matters of National Environmental Significance. When applying these guidelines to the vulnerable Southern Whiteface, and taking a precautionary approach, I considered that the action is likely to:

- adversely affect habitat critical to the survival of the species

141) Therefore, I found that the proposed action is likely to have a significant impact on the vulnerable Southern Whiteface. This is consistent with the application of the precautionary principle as described above.

Chuditch (*Dasyurus geoffroii*)- vulnerable

Protected matter ecology

142) The Chuditch (*Dasyurus geoffroii*) National Recovery Plan (in this part of my statement, I will refer to it as the 'the recovery plan') states that the species has large home ranges and may be in low numbers even when most abundant. The Chuditch require adequate numbers of suitable den and refuge sites, and sufficient prey biomass to survive. They require habitats that are of a suitable size and are not excessively fragmented.

143) I noted that the range of the species has contracted and free-ranging populations of Chuditch are now restricted to Western Australia, within an estimated 5% of their former range. I noted that there are also occasional Chuditch records from drier woodland and mallee shrubland in the Wheatbelt and Goldfield Regions, where they occur at lower densities.

144) I noted that the key threatening processes relevant to the proposed action are habitat loss and fragmentation, impacts to important populations and inappropriate fire regimes. The recovery plan specifically states that:

- all populations of Chuditch are considered important to the survival of the species; and
- critical habitat includes areas currently occupied by Chuditch, and areas of natural vegetation in which Chuditch breed, forage, and move through.

Environment within and surrounding the proposed action area (DE)

145) I noted that the department's PMST indicates that the proposed action is located where Chuditch 'may' occur.

146) I noted that surveys conducted by the proponent between 30 October and 7 November 2023, as specified in the *Assessment of Fauna Values*, failed to detect Chuditch. I noted these surveys contained searches for activity, as well camera traps were set up within the DF using universal bait (a mixture of sardines, rolled oats, peanut paste and tuna oil). The department considered, and I agreed, that the survey was inconsistent with the *Survey Guidelines for Australia's Threatened Mammals*, because the survey guidelines recommend that:

- a specific 'Chuditch bait', which has been shown to increase capture rates. This recommended bait was not used by the proponent; and
- in addition to camera traps, daytime surveys for potentially suitable habitat resources be conducted along with daytime searches for signs of activity, including tracks, scats and latrines.

147) The department considered, and I agreed, that given these camera traps were not accompanied by habitat suitability assessment and did not use Chuditch bait detectability of the species may have been low.

148) I considered media releases from the AWC, that specify that in May 2023 a population of Chuditch was translocated into the Mount Gibson Wildlife Sanctuary outside of the 'predator-free' exclusion zone. I noted that a total of 34 individuals were released, and that the Chuditch were monitored for a total of up to 12 months after release. In correspondence with the department, the AWC informed that there have been detections of Chuditch nearby the Mount Gibson Gold Project site, and it believes it is likely that Chuditch pass through or use the habitat within the mining project. On 20 May 2024, my department provided a summary of these media releases and correspondence to the proponent for comment. On 22 May 2024, the proponent confirmed it had no response to these summaries.

149) I agreed with the department that, due to survey limitations, the presence of a translocated population of Chuditch on the neighbouring AWC property, and that the Wheatbelt is part of the Chuditch's historical range, the presence of Chuditch and their habitat cannot be ruled out.

150) I noted that the department conducted its own review of the *Assessment of Fauna Values* and concluded that the DE likely contains mallee shrubland/woodland and drier woodland suitable for Chuditch. The department considered that historically mallee shrubland/woodland and drier woodland has generally provided habitat in the Wheatbelt for Chuditch. I agreed with the department's conclusions.

Potential impacts

151) I noted that the proponent has not assessed for Chuditch habitat or impacts to the Chuditch.

152) I agreed with the department that the following impacts are likely, based on the possibility that Chuditch may occur in the DE as well as the ecological characteristics of the DE:

- clearing of Chuditch foraging and breeding habitat;
- disruption of vegetation used for Chuditch dispersal;
- increased risk of predation; and
- risk of injury or death caused by mining activities.

Avoidance and mitigation

153) I noted that the proponent did not consider the Chuditch to be impacted, and therefore did not provide avoidance and mitigation measures for Chuditch. The referral documentation and EMP provide general fauna management measures that may be relevant to Chuditch.

Precautionary principle

- 154) The precautionary principle is that a 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.
- 155) The department considered, and I agreed, that the proponent has not provided information that would demonstrate that the proposed action is not likely to have significant impacts on the Chuditch.
- 156) The department advised, for the following reasons, that I apply the precautionary principle in deciding whether the proposed action is likely to have a significant impact on the Chuditch:
- the impacts of the proposed mine are consistent with the threats to the species discussed in the recovery plan, namely, impacts to an important population, habitat clearing and fragmentation; and
 - there is substantial uncertainty concerning population numbers and the species' presence and use of habitat within the DE.
- 157) I accepted the department's advice that I apply the precautionary principle.

Conclusion

- 158) Based on the information provided and publicly available information from the adjacent sanctuary, the department considered, and I agreed, that the proposed action area may contain suitable habitat within the likely range of a translocated population of Chuditch. The department advised, and I agreed, that the species, and its habitat, is likely to be present, in the absence of further information to confirm otherwise.
- 159) In assessing the potential impacts to the species, I considered the nature of the proposed action, the referral documentation, relevant conservation advice and the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines - Matters of National Environmental Significance* (Attachment B1). When applying these guidelines to the vulnerable Chuditch, and taking a precautionary approach, I considered that the action:
- is likely to adversely affect habitat critical to the survival of the species; and
 - may reduce the area of occupancy of an important population.
- 160) Therefore, I found that it is likely for the proposed action to have a significant impact on the vulnerable Chuditch. This is consistent with the application of the precautionary principle as described above.

Conclusion on likely impacted listed threatened species and communities

- 161) For the reasons given above, I found that the proposed action is likely to have significant impacts on the Wheatbelt TEC, Malleefowl, Varnish Bush, the Shield-backed Trapdoor Spider, Southern Whiteface, and Chuditch.

Other listed species

- 162) Based on information available, such as the Species Profile and Threats database, relevant recovery plans and information from the referral documentation, the department considered and I agreed that significant impacts to the following species or communities are unlikely:
- a) *Jingymia Mallee (Eucalyptus synandra)*, vulnerable

- b) Western spiny-tailed skink (*Egernia Stokesii badia*), endangered
- 163) On the basis of the department's PMST with 5km buffer and other information available, I considered that the following species are present in the surrounding area but are unlikely to be impacted:
- a) Numbat (*Myrmecobius fasciatus*)
 - b) Woylie (*Bettongia penicillata*)
 - c) Red-tailed phascogale (*Phascogale calura*)
 - d) Greater bilby (*Macrotis lagotis*)
 - e) Banded hare-wallaby (*Lagostrophus fasciatus*)
 - f) Greater stick nest rat (*Leporillus conditor*)
 - g) Shark bay bandicoot (*Perameles bougainville*)
- 164) I noted that these species are in populations translocated into the predator-free fenced-off zone in the Mount Gibson Wildlife Sanctuary. Correspondence from the AWC has indicated that the above species were released inside the fenced area and are 'self-releasing' and were detected outside of the fenced area into the wider Sanctuary, noting that the sanctuary experts do not expect Shark Bay Bandicoots to survive in the presence of cats and foxes.
- 165) In addition to the above, I noted that, according to correspondence with the AWC, woylies have increased in occupancy across the wider sanctuary since they were first detected outside in 2017, and surveys have demonstrated that breeding and interannual survival have occurred outside the fenced area. Based on the department's PMST with 5km buffer and other information available, I considered that Woylie are unlikely to be impacted.

Other part 3 provisions that are not controlling provisions

- 166) I also considered whether any other Part 3 provision was a controlling provision for the proposed action. For the reasons set out below, I was satisfied that no other Part 3 provisions were controlling provisions.

World Heritage properties (s12 & s15A)	<p>I noted that the PMST did not identify any declared World Heritage properties located within or adjacent to the DE.</p> <p>Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to World Heritage properties, I considered that the proposed action is unlikely to have a significant impact on the World Heritage values of World Heritage properties.</p> <p>For these reasons the department recommended, and I agreed, that sections 12 and 15A are not controlling provisions for the proposed action.</p>
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<p>National Heritage places (s15B & s15C)</p>	<p>I noted that the PMST did not identify any National Heritage places located within or adjacent to the DE.</p> <p>Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to National Heritage places, I considered that the proposed action is unlikely to have a significant impact on the National Heritage values of National Heritage places.</p> <p>For these reasons the department recommended, and I agreed, that sections 15B and 15C are not controlling provisions for the proposed action.</p>
<p>Ramsar wetlands (s16 & s17B)</p>	<p>I noted the PMST did not identify any declared Ramsar listed wetlands of international importance within or adjacent to the DE.</p> <p>Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to Ramsar listed wetlands of international importance, I considered that the proposed action is unlikely to have a significant impact on the ecological character of Ramsar listed wetlands of international importance.</p> <p>For these reasons the department recommended, and I agreed, that sections 16 and 17B are not controlling provisions for the proposed action.</p>
<p>Migratory species (s20 & s20A)</p>	<p>I noted that the department's PMST identified the potential presence of 6 migratory species within or adjacent to the DE</p> <p>Based on information available to the department, such as the Species Profile and Threats database and information from the referral documentation, the department considered, and I agreed, that the proposed action is unlikely to have a significant impact to these migratory species.</p> <p>For these reasons the department considered, and I agreed, that sections 20 and 20A are not controlling provisions for the proposed action.</p>
<p>Nuclear action (s21 & s22A)</p>	<p>I noted the proposed action does not meet the definition of a nuclear action as defined in the EPBC Act. For this reason, the department considered, and I agreed, that sections 21 and 22A are not controlling provisions for the proposed action.</p>

<p>Commonwealth marine environment (s23 & s24A)</p>	<p>I noted the proposed action is not being taken in a Commonwealth marine area.</p> <p>Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to a Commonwealth marine area, I considered the proposed action is unlikely to have a significant impact on the environment in a Commonwealth marine area.</p> <p>For these reasons the department considered, and I agreed, that sections 23 and 24A are not controlling provisions for the proposed action.</p>
<p>Great Barrier Reef Marine Park (s24B & s24C)</p>	<p>I noted the proposed action is not being taken in the Great Barrier Reef Marine Park.</p> <p>Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to the Great Barrier Reef Marine Park, I considered that the proposed action is unlikely to have a significant impact on the Great Barrier Reef Marine Park.</p> <p>For these reasons the department considered, and I agreed, that sections 24B and 24C are not controlling provisions for the proposed action.</p>
<p>A water resource, in relation to unconventional gas development and large coal mining development (s24D & s24E)</p>	<p>I noted the proposed action does not involve an unconventional gas development or a large coal mining development. For this reason, the department considered, and I agreed, that sections 24D and 24E are not controlling provisions for the proposed action.</p>
<p>Commonwealth land (s26 & s27A)</p>	<p>I noted the proposed action is not being taken on Commonwealth land.</p> <p>Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to Commonwealth land, I considered that the proposed action is unlikely to have a significant impact to the environment on Commonwealth land.</p> <p>For these reasons the department considered, and I agreed, that sections 26 and 27A are not controlling provisions for the proposed action.</p>

Commonwealth Heritage places overseas (s27B & s27C)	I noted that the proposed action is not being taken overseas. For this reason, the department considered, and I agreed, that sections 27B and 27C are not controlling provisions for the proposed action.
Commonwealth action (s28)	I noted that the person proposing to take the action is not the Commonwealth or a Commonwealth agency. For this reason, the department considered, and I agreed, that section 28 is not a controlling provision for the proposed action.

Other matters for decision-making

Precautionary principle

167) In making my decision I took account of the precautionary principle (section 391 of the EPBC Act) which states that a 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.

168) As set out in paragraphs 95 – 160 above, I applied the precautionary principle in deciding whether the proposed action is likely to have a significant impact on Southern Whiteface, Shield-backed Trapdoor Spider and Chuditch. For the reasons set out there, the precautionary principle supports my findings that the proposed action is likely to have a significant impact on those species. The precautionary principle did not affect my conclusion that the proposed action would also likely have significant impacts on Wheatbelt TEC, Malleefowl, and Varnish Bush.

169) In relation to the protected matters for provisions which are not controlling provisions (set out in the table above), the department does not consider that there are threats of serious or irreversible environmental damage. This is because, based on the available information including the referral documentation, survey data, desktop analysis and relevant databases and information sources, the department does not consider that there is a lack of scientific certainty concerning the scope of the threat of environmental damage in relation to these other protected matters. For these reasons, the precautionary principle does not apply and does not affect my conclusion that those other protected matters are not controlling provisions.

Bioregional plans

170) In accordance with section 176(5) of the EPBC Act, I was required to have regard to any bioregional plan that is relevant to my decision. There were no bioregional plans relevant to my decision.


Commonwealth reserve management plans

171) In accordance with section 362(2) of the EPBC Act, I must not perform any function or exercise any power in relation to a Commonwealth reserve inconsistently with a management plan that is in operation for the reserve. There were no Commonwealth reserve management plans relevant to my decision.

Reasons for decision

172) In view of my findings based on the reasons given above, I concluded that the proposed action will, or is likely to, have a significant impact on matters protected by Part 3 of the EPBC Act, being listed threatened species and a listed threatened ecological community.

173) Therefore, I decided on 13 June 2024, under section 75 of the EPBC Act, that the proposed action is a controlled action and ss 18 and 18A are controlling provisions for the action.

name and position	Kylie Calhoun Branch Head Environment Assessments West
signature	
date of decision	8 August 2024

Annexure A - relevant legislation

Legislation

Section 68 of the EPBC Act relevantly provides:

- 1) A person proposing to take an action that the person thinks may be or is a controlled action must refer the proposal to the Minister for the Minister's decision whether or not the action is a controlled action.
- 2) A person proposing to take an action that the person thinks is not a controlled action may refer the proposal to the Minister for the Minister's decision whether or not the action is a controlled action.

Section 74 of the EPBC Act relevantly provides:

Inviting other Commonwealth Ministers to provide information

- 1) As soon as practicable after receiving a referral of a proposal to take an action, the Environment Minister must:
 - a) inform any other Minister whom the Environment Minister believes has administrative responsibilities relating to the proposal; and
 - b) invite each other Minister informed to give the Environment Minister within 10 business days information that relates to the proposed action and is relevant to deciding whether or not the proposed action is a controlled action.

Inviting comments from appropriate State or Territory Minister

- 2) As soon as practicable after receiving, from the person proposing to take an action or from a Commonwealth agency, a referral of a proposal to take an action in a State or self-governing Territory, the Environment Minister must, if he or she thinks the action may have an impact on a

matter protected by a provision of Division 1 of Part 3 (about matters of national environmental significance):

- a) inform the appropriate Minister of the State or Territory; and
- b) invite that Minister to give the Environment Minister within 10 business days:
 - i) comments on whether the proposed action is a controlled action; and
 - ii) information relevant to deciding which approach would be appropriate to assess the relevant impacts of the action (including if the action could be assessed under a bilateral agreement).

Inviting public comment

- 3) As soon as practicable after receiving a referral of a proposal to take an action, the Environment Minister must cause to be published on the Internet:
 - a) the referral; and
 - b) an invitation for anyone to give the Minister comments within 10 business days (measured in Canberra) on whether the action is a controlled action.

Section 75 of the EPBC Act relevantly provides:

Is the action a controlled action?

- 1) The Minister must decide:
 - a) whether the action that is the subject of a proposal referred to the Minister is a controlled action; and
 - b) which provisions of Part 3 (if any) are controlling provisions for the action.

(1AA) To avoid doubt, the Minister is not permitted to make a decision under subsection (1) in relation to an action that was the subject of a referral that was not accepted under subsection 74A(1).

Minister must consider public comment

(1A) In making a decision under subsection (1) about the action, the Minister must consider the comments (if any) received:

- a) in response to the invitation under subsection 74(3) for anyone to give the Minister comments on whether the action is a controlled action; and
- b) within the period specified in the invitation.

Considerations in decision

- 2) If, when the Minister makes a decision under subsection (1), it is relevant for the Minister to consider the impacts of an action:
 - a) the Minister must consider all adverse impacts (if any) the action:
 - i) has or will have; or
 - ii) is likely to have; on the matter protected by each provision of Part 3; and

- b) must not consider any beneficial impacts the action:
 - i) has or will have; or
 - ii) is likely to have; on the matter protected by each provision of Part 3.

Timing of decision and designation

- 5) The Minister must make the decisions under subsection (1) and, if applicable, the designation under subsection (3), within 20 business days after the Minister receives the referral of the proposal to take the action.