

Simcoa Operations Pty Ltd  
North Kiaka Proposal  
s40(2)(a) Environmental Review Document  
Response to Submissions

Assessment number 2346

June 2024



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Term	Definition
Coomberdale TEC	Heath dominated by one or more <i>Regelia megacephala</i> , <i>Kunzea praestans</i> and <i>Allocasuarina campestris</i> on ridges and slopes of the chert hills of the Coomberdale Floristic Region”
DBCA	Department of Biodiversity, Conservation and Attractions
DE	Development Envelope
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (WA)
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DWER	Department of Water, Environment and Regulation (WA)
EMP	Environmental Management Plan
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EPA	Environmental Protection Authority (WA)
EPAS	Environmental Protection Authority Services
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
ERD	Environmental Referral Document
GHG	Greenhouse Gas
GHGMP	Greenhouse Gas Management Plan
KSIA	Kemerton Strategic Industrial Area
Mining Act	<i>Mining Act 1978</i> (WA)
MNES	Matters of National Environmental Significance
MS	Ministerial Statement
MS 813	Ministerial Statement 813
SRE	Short Range Endemic
SWALSC	South West Aboriginal Land and Sea
TEC	Threatened Ecological Communities
WA	Western Australia

# 1. Introduction

## 1.1 Background

SIMCOA Operations Pty Ltd (SIMCOA) operates the Moora Quartzite Mine (Moora Mine), approximately 15 km north of Moora, in the wheatbelt of Western Australia (WA). Quartzite ore from Moora Mine is currently transported via covered truck to SIMCOA's Kemerton Smelter (Kemerton Smelter) located in Kemerton Strategic Industrial Area (KSIA), approximately 17 km north-east of Bunbury in the South-West of WA. Existing activities at Moora Mine and Kemerton Smelter are approved under Part IV of the *Environmental Protection Act 1986* (EP Act) and Ministerial Statement 813 (MS 813) (Approved Proposal).

SIMCOA is proposing to establish the North Kiaka Quartzite Mine, immediately north of Moora Mine (with the mine pit located approximately 1.5 to 2 km north of Kiaka Road and Moora Mine). The proposed development of the North Kiaka Mine (the Project) is within tenement M70/1292. The North Kiaka Proposal is a significant amendment to the existing operations at Moora Mine. SIMCOA also intends to construct an abandonment bund around the Moora Mine pits, to comply with closure requirements for the existing operations.

## 1.2 Assessment of Referral Information and response to submissions

Part IV of the EP Act is the primary legislation governing environmental protection and impact assessment in Western Australia (WA). Division 1 of Part IV of the EP Act provides for the referral and assessment of significant or strategic proposals. SIMCOA referred the North Kiaka Project in November 2021 to the WA Environmental Protection Authority (EPA) under s38 of the *Environmental Protection Act 1986* (WA) (EP Act).

On July 29, 2022, the EPA determined the level of assessment at “*referral information with additional information (required under s. 40(2)(a) of the Environmental Protection Act 1986) and public review (2 weeks)*” (CMS 18097). A Notice Requiring Information for Assessment (the Notice) was issued to SIMCOA by the EPA on 15 August 2022 under Section 40(2)(a) of the EP Act (EPA, 2022). Development of the North Kiaka resource will extend the operational life of both Moora Mine (with respect to crushing and screening) and Kemerton Smelter (with respect to processing) (both currently approved under MS 813). As a result, the EPA considered the referral as “*an amendment to an existing approved proposal under s40AA of the EP Act*”.

The Response to the EPA's Decision to Assess: Additional Information Requirements (Updated Referral Document) document was submitted by SIMCOA to the EPA on 15 February 2024 and released for a two (2) week public comment period from 10 April 2024, closing 24 April 2024. On 10 May 2024, the EPA referred a total of 26 public and stakeholder comments, to SIMCOA. Six of the submissions were received from the general public (from three respondents) and the remaining submissions received from state and commonwealth government agencies.

The key issues raised were:

- Demonstrate further steps to avoid, manage, mitigate and monitor direct and indirect impacts on the Coomberdale Chert Hills TEC listed as critically endangered.
- Undertake further targeted surveys for Threatened and Priority flora and fauna, including *Zanda latirostris* (Carnaby's cockatoo, listed endangered).
- Previous advice and comments for both noise and air quality have not been addressed adequately.
- Quantify offsets for different environmental values and provide an Offsets Strategy and Offsets Management Plan.
- The large number of unpublished reports referenced in the ERD that were not available for review may result in a further request for information or clarification and should be provided for review.

The Draft ERD had been reviewed by Decision Making Authorities (DMAs) prior to the ERD being approved for the two week public consultation period. The responses to the previous RFIs are provided in Appendix A of this document.

## 1.3 Purpose of this document

The purpose of this document is to provide responses to submissions provided by the EPA Services (EPAS) to SIMCOA on 10 May 2024 that relate to the Environmental Review Document (ERD), Assessment 2346. This document also provides SIMCOA with an opportunity to:

- Confirm that the Targeted Flora and Terrestrial Fauna investigations has been undertaken and that the findings are included in the final ERD, the Flora and Vegetation report (GHD and Trudgen 2024) and Terrestrial Fauna and Targeted Black Cockatoo habitat survey (GHD 2024)
- Highlight the aspects of the Revised Proposal that have been modified in response to submissions received
- Address any errors and/or omissions identified in the Environmental Review Document
- Amend environmental commitments and/or include additional environmental commitments in response to additional information collected or submissions received.

## 1.4 Response method and structure of this document

This Response to Submissions document has several components. Each component and its purpose is described below:

1. Introduction – this introduction is intended to provide the context of the Response to Submissions document.
2. Description of the Revised Proposal – the Revised Proposal has not changed since the issue of the Environmental Review Document but a brief description has been provided for context.
3. Response to EPAS Submissions addressing the key issues for the Proposal including:
  - a. Flora and Vegetation
  - b. Subterranean Fauna
  - c. Terrestrial Fauna
  - d. Inland waters
  - e. Greenhouse gas emissions
  - f. Air quality
  - g. Social surroundings
  - h. Offsets
4. Response to the public submissions addressing the following issues:
  - a. The Revised Proposal – General comments
  - b. Flora and Vegetation
  - c. Subterranean Fauna
  - d. Terrestrial Fauna
  - e. Inland Waters
  - f. GHG
  - g. Air Quality
  - h. Social Surroundings
  - i. Offsets
5. Appendices – Documents appended by EPA request or to inform the Responses to Public Submissions.
  - a. Appendix A – Previous Requests for Further Information

## 2. Description of the Revised Proposal

### 2.1 Description of Proposal

Moora Quartzite Mine (Moora Mine) is located approximately 15 km north of Moora, in the Wheatbelt of Western Australia (WA). Quartzite ore from Moora Mine is currently transported via covered truck to SIMCOA's Kemerton Smelter (Kemerton Smelter) located in Kemerton Strategic Industrial Area (KSIA), approximately 17 km north-east of Bunbury in the South-West of WA.

SIMCOA is proposing to establish the North Kiaka Quartzite Mine, immediately north of Moora Mine (the mine pit is located approximately 1.5 to 2 km north of Kiaka Road and Moora Mine). The proposed development of the North Kiaka Mine (the Project) is within tenement M70/1292. The North Kiaka Project is a significant amendment to the existing operations at Moora Mine. SIMCOA also intend to build an abandonment bund around the Moora Mine pits, to comply with closure requirements for the existing operations.

The Project is located within the North Kiaka Development Envelope (DE) which is 216.42 ha, with a proposed disturbance footprint (DF) of up to 44.59 ha. This disturbance footprint is required to establish an open-cut mine pit, waste rock dump (WRD), support infrastructure, and connecting haul roads. Native vegetation clearing will be limited to 17.12 ha and is required to develop the mine pit and a small portion of the adjoining haul road and infrastructure area.

Moora Mine is an operational mine site which has been operating for over 30 years with an estimated remaining resource life of approximately seven (7) years. SIMCOA advised the Department of Energy, Mines, Industry, Regulation and Safety (DEMIRS) of its intent to mine quartz below the water table to extend its life of mine. DEMIRS advised SIMCOA that construction of an abandonment bund would be required around the Moora Mine pit as a condition of DEMIRS granting approval to mine below the water table.

Quartz mined within the North Kiaka Development Envelope (DE) will be transported to Moora Mine via designated haul roads for crushing and screening with the crushed and screened quartz then transported from Moora Mine to the Kemerton smelter for processing.

The content elements of the Proposal are provided in Table 1, predicted greenhouse gas emissions in Table 2 and a description of the key stages of the Proposal are described in Table 3.

**Table 1** *Revised Proposal content elements*

Proposal element	Approved Proposal (MS 813) (Maximum extent, capacity or range)	North Kiaka Mine and Moora Mine abandonment bund (Maximum extent, capacity or range)	Revised Proposal - Combined Extent
Revised Proposal Development Envelopes (DE) Including a mine pit, waste rock landform (WRL), run of mine area (ROM), laydown and stockpile areas, access corridor and associated infrastructure and abandonment bund.	Clearing of no more than 25 ha of native vegetation within a disturbance footprint of not more than 93 ha within the Moora Mine development envelope of 239.10 ha	Disturbance footprint (DF) of up to 44.59 ha (including up to 17.12 ha of clearing) within a 216.42 ha North Kiaka DE.  Increasing the Moora Mine DF from 93 ha to 96 ha (additional 3 ha). Clearing of 1 ha of native vegetation within the increased Moora DF.	Total combined DE of 455.52 ha including clearing of no more than 43.12 ha of native vegetation within a DF of 140.59 ha which consists of:  – 26 ha clearing of native vegetation within a disturbance footprint of not more than 96 ha and DE of 239.10 ha – Moora Mine  – 17.12 ha of native vegetation within a disturbance footprint of not more than 44.59 ha and DE of 216.42 ha - North Kiaka DE.

Proposal element	Approved Proposal (MS 813) (Maximum extent, capacity or range)	North Kiaka Mine and Moora Mine abandonment bund (Maximum extent, capacity or range)	Revised Proposal - Combined Extent
Mine pit	<p>Moora Mine DE 239.10 ha</p> <p>Moora Mine pit footprint is 25.48 ha and is currently operational with approved clearing of no more than 25 ha of native vegetation within a disturbance footprint of not more than 93 ha in the Moora Mine DE of 239.10 ha.</p> <p>Current production of up to 130,000 tpa of lump quartz within an approved extent of 160,000 tpa.</p>	<p>Clearing of no more than 17.12 ha of native vegetation within a 44.59 ha disturbance footprint within 216.42 ha development envelope (North Kiaka DE)</p> <p>26 ha of native vegetation within a disturbance footprint of not more than 96 ha (Moora Mine)</p> <p>An estimated 236,000 tonne per annum (tpa) of ore will be processed (crushed and screened) to produce up to 130,000 tpa of lump quartz within an approved extent of 160,000 tpa.</p>	<p>The Moora Mine pit footprint is 25.48 ha</p> <p>Total combined DE of 455.52 ha including clearing of no more than 43.12 ha of native vegetation within a DF of 140.59 ha which consists of:</p> <ul style="list-style-type: none"> <li>– 26 ha clearing of native vegetation within a disturbance footprint of not more than 96 ha – Moora Mine</li> <li>– 17.12 ha of native vegetation within a disturbance footprint of not more than 44.59 ha - North Kiaka DE</li> </ul> <p>An estimated 236,000 tonne per annum (tpa) of ore will be processed (crushed and screened) up to 130,000 tpa of lump quartz within a approved extent of 160,000 tpa.</p>
Waste Rock Dump	<p>Waste Rock dumps at Moora Mine are a total of 34.9 ha:</p> <ul style="list-style-type: none"> <li>– Main Waste Dump – 9.7 ha</li> <li>– North Dump – currently 6.0 ha with maximum approved of 19.0 ha</li> <li>– Old North Dump – 1.5 ha</li> <li>– South East Dump – 3.8 ha</li> <li>– West Pit Dump – 0.9 ha</li> </ul>	<p>Proposed WRD (Tonkin) with a footprint of 9.69 ha to be located approximately 0.5 km south of the mine pit, on farmland previously cleared of native vegetation.</p> <p>It is estimated that up to 2.15 million m<sup>3</sup> of waste rock will be disposed to the Tonkin WRD, assuming a swell factor of 30%.</p> <p>The final height of the WRL is expected to be 21– 45 m below the tallest landform in the North Kiaka DE (pre-development). The WRL is positioned in a valley to further reduce visibility of the landform from surrounding areas.</p>	<p>Total combined WRD is 44.59 ha</p> <ul style="list-style-type: none"> <li>– Moora Mine: 34.9 ha</li> <li>– North Kiaka DE: Tonkin WRD 9.69 ha footprint</li> </ul>
ROM	Short-term ROM (1.22 ha, approximately 80 m x 100 m) allowing for up to 20 days per year to be stockpiled	No change	No change
Ancillary Facilities		Access corridor (connecting North Kiaka DE to the Moora Mine) (7.31 ha) and associated infrastructure (0.88 ha)	Access corridor (connecting North Kiaka DE to the Moora Mine) (7.31 ha) and associated infrastructure (0.88 ha) including an administration



Proposal element	Approved Proposal (MS 813) (Maximum extent, capacity or range)	North Kiaka Mine and Moora Mine abandonment bund (Maximum extent, capacity or range)	Revised Proposal - Combined Extent
		including an administration building, car park, weighbridge, workshops, ablution facilities, laydown and stockpile areas, hydrocarbon storage, refuelling facility, and washdown bays	building, car park, weighbridge, workshops, ablution facilities, laydown and stockpile areas, hydrocarbon storage, refuelling facility, and washdown bays
Power	One onsite generator (noting that crushing and screening of ore will occur at the existing Moora Quartzite Mine)	No change	One onsite generator (noting that crushing and screening of ore will occur at the existing Moora Quartzite Mine)
Groundwater abstraction (water demand)	Moora Mine groundwater licence (GWL 104693(6)) to authorize the use of 250,000kL of abstracted water within tenement M70/1292.	No dewatering or groundwater abstraction is currently proposed for the Project.  If additional water is required, SIMCOA will seek the necessary approvals under the RiWI Act to abstract groundwater within M70/1292.	Moora Mine groundwater licence (GWL 104693(6)) to authorise the use of 250,000kL of abstracted water within tenement M70/1292. The groundwater abstraction volume approved in Licence GWL 104693(6) is expected to be sufficient for Moora Mine and North Kiaka DE. If additional water is required, SIMCOA will seek the necessary approvals under the RiWI Act to abstract groundwater within M70/1292.
Water Discharge	Discharge of up to 122,000 kL per annum of dewatered groundwater via Kiaka Creek to the Conderoo River wetlands (Moora Mine)	No change	Discharge of up to 122,000 kL per annum of dewatered groundwater via Kiaka Creek to the Conderoo River wetlands (Moora Mine)
Dewater discharge pipeline	Dewater discharge pipeline routed along an existing access road (Moora Mine)	No change	Dewater discharge pipeline routed along an existing access road (Moora Mine)
Area of rehabilitation	All disturbed areas (Moora Mine)	All disturbed areas (North Kiaka DE)	All disturbed areas (Moora Mine and North Kiaka DE)
Kemerton Smelter	Ministerial Statement 813 – Silicon Production 64,000 tonnes per annum (approximately) – Quartzite Consumption 160,000 tonnes	Change – extend operating life of Kemerton Smelter from 2026 to 2042	As per authorised extent in MS 813

Proposal element	Approved Proposal (MS 813) (Maximum extent, capacity or range)	North Kiaka Mine and Moora Mine abandonment bund (Maximum extent, capacity or range)	Revised Proposal - Combined Extent
	<ul style="list-style-type: none"> <li>per annum (approximately)</li> <li>– Wood for Charcoal 110,000 tonnes per annum (approximately)</li> <li>– Charcoal Production 27,000 tonnes per annum (approximately)</li> <li>– Smelter Furnaces <ul style="list-style-type: none"> <li>• 4 x submerged electric arc furnaces</li> </ul> </li> <li>– Off-gas Cleaning Plant (Baghouses) <ul style="list-style-type: none"> <li>• One large baghouse with stacks</li> <li>• One large baghouse without stacks</li> </ul> </li> </ul>		

**Table 2** Predicted greenhouse gas emissions

Revised Proposal elements with greenhouse gas emissions			
Construction (the Project and abandonment bund at Moora Mine – no new construction at Kemerton Smelter)			
Scope 1	2,168		tCO <sub>2</sub> -e
Scope 2	0		
Scope 3	3,653		tCO <sub>2</sub> -e
Operational elements (combined annual Moora Mine, Kemerton Smelter and the Project)			
Scope 1	1,546 Moora Mine and the Project	123,454 Kemerton	tCO <sub>2</sub> -e
Scope 2	0	300,024 Kemerton	tCO <sub>2</sub> -e
Scope 3	11,761 Moora Mine and the Project	681,680 Kemerton	tCO <sub>2</sub> -e

**Table 3** Key stages for the Proposal

Rehabilitation		
<p>Rehabilitation of North Kiaka DE and Moora Mine will be undertaken in line with commitments in the s.40(2)(a) Supporting Document, Ministerial Statement conditions (following approval of the Revised Proposal by the Minister), and the Mine Closure Plan (to be assessed and approved by Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)). Some key rehabilitation commitments are listed below:</p> <p>Rehabilitation will be progressively undertaken.</p> <p>Rehabilitated landforms (Tonkin WRD) will be stable and non-polluting (i.e. batter slope of 18°, placement of structurally stable soils at the surface, contoured/ ripped/ logs and rocks placed to reduce erosion risk).</p> <p>The Tonkin WRD will be rehabilitated using local native species to meet post-closure goals and outcomes as specified in the Mine Closure Plan (MCP)</p> <p>Waste rock that is stable and non-acid forming will be used as growth medium for rehabilitation of landforms, as this method is proven to successfully re-establish native provenance species at the existing Moora Mine.</p> <p>Topsoil comprising sandy gravels will be collected, stockpiled (&lt;2 m height) and used to rehabilitate areas previously used for agriculture that will be returned to their pre-mining land use.</p> <p>Weed management will be undertaken for the first three years following rehabilitation. Any requirement for further weed control will be assessed after the three-year timeframe.</p>		
Commissioning		
<p>Limited commissioning works are required as all crushing activities will continue to be undertaken at Moora Mine. No commissioning required for the construction of the abandonment bund.</p> <p>There will be no change to the volume of quartz being processed at Kemerton Smelter, so no commissioning will be required at that site.</p>		
Decommissioning		
<p>SIMCOA intends to enable regrowth of local native flora species on the WRD's, close the Moora Mine pit with an abandonment bund, and return all other disturbance footprints to pre-mining agricultural land use (including the removal of buildings and infrastructure). SIMCOA operate the Moora Mine under an approved MCP. They currently comply with the MCP for Moora Mine for post mining land use and other requirements.</p> <p>SIMCOA will develop a MCP in accordance with the <i>Department of Mines, Industry, Regulation and Safety 2020 Guidelines for Mining Proposals in WA</i> (DEMIRS, 2023b), to support the development of the Project under the <i>Mining Act 1978</i>. The MCP will be assessed and approved by DEMIRS prior to commencement of activities.</p>		
Other elements which affect extent of effects on the environment		
Proposal time*	Maximum project life	20 years
	Construction phase	1 year
	Operations phase	18 years
	Decommissioning phase	Approximately 1 year

## **2.2 Spatial Data**

The spatial extent of the Revised Proposal has not changed since submission of the Updated Referral Document. Digital spatial data was submitted to the Department of Water and Environmental Regulation (DWER) on submission of the Updated Referral Document, in accordance with the Instructions on how to define the key characteristics of a Proposal.

### 3. Response to EPA services submission

This section provides from the comments from EPAS regarding the Environmental Review Document for the North Kiaka Quartzite Mine proposed by SIMCOA. Each comment has been provided and addressed in Table 4.

Table 4 EPA Services comment

EPA Services comment	Proponent response
<b>Flora and Vegetation</b>	
<p>The studies and surveys undertaken for the flora and vegetation assessment need to meet the EPA's technical guidance. It is noted that a commitment has been made to conduct targeted surveys in early 2024 to address information gaps but the surveys have not been provided to date. Data is required for significant flora and vegetation to update the analysis of direct, indirect, and the cumulative impacts to flora and vegetation at regional level.</p>	<p>Targeted Surveys were undertaken in April 2024 for the following:</p> <ul style="list-style-type: none"> <li>Threatened and Priority Flora including: <ul style="list-style-type: none"> <li><i>Acacia aristulata</i></li> <li><i>Daviesia dielsii</i></li> </ul> </li> </ul> <p>The targeted flora survey was undertaken 9-12 April 2024 to record the occurrence of threatened and priority flora in the North Kiaka DE. This survey was undertaken in accordance with the EPA's 2016 technical guidance for the assessment of Flora and Vegetation. The Flora and Vegetation Report provided in Appendix G of the ERD, has been updated to include the data and findings reported in the April 2024 survey. (GHD and Trudgen, 2024, North Kiaka Flora and Vegetation Report).</p> <p>The GHD and Trudgen 2024 Report, Appendix G, presents the results from the surveys undertaken by M. Trudgen to comply with the 2016 technical guidance.</p> <p>The ERD, for reference purposes provides the previous surveys in Appendices H and I.</p> <p>The GHD (2024) April survey has not been prepared as a separate report.</p> <p>Sections 5.2.3.1 and 5.2.3.2 of the ERD have been updated to reference the April 2024 targeted flora survey results.</p> <p>Section 5.2.3.5.5 of the ERD has been updated to describe the occurrence and condition of Threatened and Priority Flora reported in the April 2024 survey.</p> <p>SIMCOA has avoided, managed, mitigated and monitored direct and indirect impacts to flora and vegetation where possible. These can be found in Section 5.2.5 of the ERD.</p> <p>The ERD has been updated with the data to describe the direct, indirect, and cumulative impacts to flora and vegetation at a regional level in Section 5.2.8 and Sections 9 and 10 of the ERD.</p>
<b>Terrestrial Fauna</b>	
<p>The studies and surveys undertaken for terrestrial fauna need to meet the EPA's technical guidance. It is noted that a commitment has been made in early 2024 to conduct targeted surveys to address information gaps on Carnaby's Black Cockatoo habitat but no surveys or additional information has been provided. A contemporary assessment is required of the potential impacts (direct, indirect and cumulative), at both local and regional scale.</p>	<p>A targeted Black Cockatoo foraging habitat survey was undertaken 9-12 April 2024 to update information on the foraging habitat in the North Kiaka DE. This survey was undertaken in accordance with the EPA's 2016 technical guidance for terrestrial fauna surveys and reporting.</p> <p>The Terrestrial Fauna Report provided in Appendix M of the ERD, has been updated to include the data and findings reported in the April 2024 survey. (GHD 2024, North Kiaka Terrestrial Fauna and Targeted Black Cockatoo Habitat Survey).</p> <p>The GHD 2024 Report, Appendix M, presents the results from both surveys (2018 and 2024) undertaken by GHD and complies with the 2016 technical guidance.</p> <p>The GHD (2024) April survey is not presented in a separate report.</p>

EPA Services comment	Proponent response
	<p>Section 5.5.3.1.4 of the ERD has been updated with the additional data to amend assessment of the potential impacts (direct, indirect and cumulative), on Black Cockatoos foraging habitat at both local and regional scale.</p> <p>Section 5.5.4.1.5.3 of the ERD includes the information from the targeted 2024 survey including the area of foraging habitat identified in the Revised Proposal, the area being impacted by construction and area of habitat retained in the Offset.</p> <p>The 2024 Survey was undertaken to be consistent with the 2022 Referral guideline for 3 WA threatened black cockatoo species and Survey Guidelines for Australia's Threatened Birds and the EPA's 2016 Technical Guidance for Terrestrial Fauna surveys.</p> <p>SIMCOA reviewed the potential impacts (direct, indirect and cumulative), at both local and regional scale on Black Cockatoo and provides this advice in Section 5.5.8 and Sections 9 and 10 of the ERD.</p>
<b>Greenhouse Gas emissions</b>	
<p>While the greenhouse gas (GHG) management plan discusses best practice design approaches, it does not provide an evaluation against other best practice designs or technologies to justify the proposed approach. It is noted that a commitment has been made in early 2024 to submit an independent expert review of best practice design approaches to meet the requirements of the EPA's GHG emissions guidance.</p> <p>The issue is summarised below.</p> <p>As the operating life of the existing silicon smelter (Ministerial Statement 813) will increase as a result of the proposal, an independent expert peer review for GHG is required to support the assessment.</p>	<p>A peer review of the GHGMP was commissioned and the Peer Review report has been included in Appendix U of the ERD. 2024.</p> <p>The peer review found that the estimated emissions from both construction and operation, as well as the projected reductions reported in the GHGMP, are reasonable.</p> <p>The Peer review noted that Simcoa is currently the only silicon producer in Australia, and therefore no direct comparison in the same market is available to compare to determine the emission intensity performance metric.</p> <p>The peer review found that introducing the charcoal retort to SIMCOAs Kemerton processing operations is in line with world-wide industry best practice.</p>
<p>The independent expert review is required, consistent the information requirements in the EPA's GHG emissions guidance, to inform the following:</p> <ol style="list-style-type: none"> <li>1. Emissions sources, estimates and trajectory <ol style="list-style-type: none"> <li>a. Have all emission sources for Scope 1, 2 and 3 GHG emissions been identified for the smelter and mining operations?</li> <li>b. Are the GHG emission estimates credible (e.g. within an expected/typical range) for the smelter and mining proposal?</li> <li>c. Are offsets that satisfy integrity principles likely to be reasonably practicable and available at the time of proposed future surrender?</li> </ol> </li> <li>2. GHG Emissions intensity <ol style="list-style-type: none"> <li>a. Provide benchmarking of the silicon smelter greenhouse gas emission intensity against global silicon producers (emissions per unit of production).</li> </ol> <p>Provide comment on the smelter technology and improvements in relation to best/good practice GHG emissions intensity, noting that the smelter is an existing operation and technology decisions were made previously.</p> </li> </ol>	<p>Pangolin's (2024) peer review reviewed the following information:</p> <ol style="list-style-type: none"> <li>1. Emissions sources, estimates and trajectory <ol style="list-style-type: none"> <li>a. All emission sources for Scope 1, 2 and 3 GHG emissions been identified for the smelter and mining operations?</li> <li>b. Appropriateness of the submitted GHG emission estimates (e.g. within an expected/typical range) for the smelter and mining proposal?</li> </ol> </li> <li>2. GHG Emissions intensity <ol style="list-style-type: none"> <li>a. Benchmarking of the silicon smelter greenhouse gas emission intensity against global silicon producers (emissions per unit of production).</li> </ol> <p>Pangolin (2024) noted that SIMCOA was utilising the best practice smelter technology at Kemerton smelter, and any improvements in relation to best/good practice GHG emissions intensity would be incorporated into future expansions to the smelter.</p> <p>Pangolin's 2024 peer review report is provided in Appendix U of the ERD.</p> </li> </ol>
<b>Air Quality</b>	
<p>Noting advice that emissions of dust, including fine dust (PM<sub>10</sub> and PM<sub>2.5</sub>) from the North Kiaka proposal cannot be regulated under an EP Act Part V licence, provide information on the potential impacts (including from crystalline silica) and regulation of dust emissions in relation to sensitive receptors near the proposal. It is noted that the separation distance to</p>	<p>SIMCOA manages dust across the current Moora mine footprint by way of wet crushing of quartz, wetting down of blasted quartz, water truck for roadways. The primary source of potential silica dust generation is generated at the quartz crushing plant which is located at the Moora</p>

EPA Services comment	Proponent response
<p>some sensitive receptors is less than 1000 metres. This information should consider potential cumulative impacts on nearby sensitive receptors including background concentrations, the North Kiaka proposal and the existing Moora Mine.</p>	<p>mine. Quartz mined at the North Kiaka mine will be crushed at the plant located at Moora mine.</p> <p>Crushing is undertaken as a wet process to minimise dust generation.</p> <p>SIMCOA acknowledges that silica dust is a potential risk to human health (employees at the Mine). This is acknowledged in Section 5.1 North Kiaka Materials Characterisation (GHD 2023, Appendix F1 of the ERD) and in Section 5.1 Moora Mine Materials Characterisation (GHD 2022, Appendix F2 of the ERD).</p> <p>SIMCOA routinely monitors the personal silica dust exposure levels of its mine employees and undertakes static silica dust monitoring near the crushing plant.</p> <p>Results from personal monitoring or employees are submitted on an annual basis to the Department of Health (DoH) and Department of Energy, Mining, Industry Regulation and Safety (DEMIRS), as part of SIMCOA's commitment to workers health and compliance. The results meet required guidelines.</p> <p>Section 5.9.5. in the ERD describes the mitigation and management measures in place to minimise impacts to human health in the workplace at both Moora mine and this Revised Proposal.</p> <p>SIMCOA proposes to use the same crushing plant for ore extracted from the North Kiaka Mine, and this activity will continue to be regulated by DWER under its approved Part V licence (L6149/1988/9). SIMCOA consulted with DWER in 2023 regarding the Part V licence required for North Kiaka. DWER advised that the North Kiaka operations should be incorporated into the approved Part V licence.</p> <p>SIMCOA monitors dust levels at the Moora Mine boundary (Part V licence requirement) and the results are well within the licence requirement as detailed in Section 5.9.5.2.1.1.1 in the ERD.</p> <p>SIMCOA will prepare an application to amend the approved Part V once this Part IV assessment process is complete. Alternatively, should DWER not want to proceed with a licence amendment, dust emissions could be managed via the Mining Proposal that will be required to be approved by DEMIRS.</p> <p>The EMP provided in Appendix C of this ERD requires that an Operational Management Plan to manage fugitive dust is prepared.</p>
Social Surroundings	
<p>Noting advice that the regulation of emissions from the North Kiaka proposal is not within the scope of an EP Act Part V licence, provide information on potential noise impacts and regulation to demonstrate compliance with the Western Australian noise regulations. Information should consider the North Kiaka proposal as well as potential cumulative impacts from the proposal and existing operations on nearby sensitive receptors.</p>	<p><i>Noise</i></p> <p>Noise modelling undertaken for the Revised Proposal notes that mine operations commence at 7.00am through to approximately 5.00pm. Modelling confirmed that SIMCOA's operations will not exceed day or night time EPNR criteria levels. Noise Assessment, GHD 2020, Appendix Q of the ERD.</p> <p>SIMCOA is required to report on an annual basis an assessment of all noise monitoring data against licence limits or other appropriate measures (standards and guidelines).</p> <p>No significant noise generating facilities are proposed at the North Kiaka mine and as the crushing plant will remain at Moora mine, there are no significant cumulative noise impacts as a result of this Proposal. This activity will continue to be regulated by DWER under the approved Part V licence.</p>

EPA Services comment	Proponent response
	<p>SIMCOA consulted with DWER in 2023 regarding the Part V licence required for North Kiaka. DWER advised that the North Kiaka operations should be incorporated into the approved Part V licence (L6149/1988/9). This would allow DWER to continue to regulate noise emissions for the Proposal.</p> <p>SIMCOA will prepare an application to amend the approved Part V once this Part IV assessment process is complete. Should DWER not want to proceed with a licence amendment, noise emissions could be managed via the Mining Proposal that will be required to be approved by DEMIRS.</p>
<p>Provide information to demonstrate consistency with the EPA guidance <i>EIA of Social Surroundings – Aboriginal Cultural Heritage</i>, including potential impacts not considered by the <i>Aboriginal Heritage Act 1972</i> and detail of reasonable steps taken to consult with relevant people.</p>	<p><b>Aboriginal Cultural Heritage</b></p> <p>Information demonstrating consistency with the EPA guidance <i>EIA of Social Surroundings – Aboriginal Cultural Heritage</i>, including potential impacts not considered by the <i>Aboriginal Heritage Act 1972</i> is included in Section 5.7.4.1.1 of the ERD. This section details the potential direct and indirect impacts to Aboriginal Heritage.</p> <p>Key stakeholders are listed in Section 3.1 of the ERD.</p> <p>Detail of consultation undertaken with Traditional Owners (Yued Native Title Group) has been provided in Table 3.1 of Section 3.3 of the ERD. SIMCOA commits to engaging Heritage Monitors to monitor ground disturbing activities when clearing <i>Moodjar</i> trees or disturbing the bed of Kyaka Brook as described in the EMP. SIMCOA will continue to liaise with traditional owners in their operations at Moora Mine and North Kiaka.</p>
<b>Inland Waters</b>	
<p>Noting that the regulation of discharges from the proposal is not within the scope of an EP Act Part V licence, provide information on the regulation of water discharge from the proposal. It is noted that a Surface Water Management Plan (SWMP) has been developed for the mine to minimise impact downstream environments including Kyaka Brook and Coonderoo River.</p>	<p>SIMCOA does not intend to release process water from the North Kiaka mine to surface water sources, however during times of heavy rainfall there could be cross flow of rainwater across the mining area and adjacent agricultural land that could enter surface waters. The Moora Mine has a SWMP for the approved Mining Proposal and has been provided as Appendix X.</p> <p>It should be noted that SIMCOA undertook preliminary licencing discussions with the DWER in 2023 with regards to the North Kiaka Mine, and it was agreed that a suitable licensing approach would be to incorporate the North Kiaka mine into the existing Part V licence. This would allow DWER the opportunity to regulate any fugitive water discharge from the site, should the proposed regulation via the DEMIRS Mining Proposal not meet DWER requirements. A Part V Works Approval is held by SIMCOA for the proposed dewatering activities at the existing Moora Mine</p>
<b>Offsets</b>	
<p>The offsets need to meet the requirement of state and commonwealth policy and the quantification of the offsets needs to consider the values being impacted as well as the value of the offsets used.</p> <p>The updated analysis of direct, indirect and cumulative impacts to fauna and flora and vegetation should inform offsets for significant residual impacts to environmental values.</p> <p>The state and commonwealth calculator should be used to justify any banked offsets against historical offset use, and the approach needs to comply with s. 40AA of the EP Act.</p>	<p>The Offset Strategy has been prepared for the protected matters using the DCCEEW offset assessment guide (OAG). Section 4.1.1 of the Offset Strategy outlines the Commonwealth legislative context.</p> <p>Section 3.1 of the Offset Strategy describes the Proposal.</p> <p>Section 3.3 of the Offset Strategy outlines the impact avoidance</p> <p>The impact calculations are described in Section 7 of the Offset Strategy</p> <p>The habitat scoring in Section 5.1.5 of the Offset Strategy has been based on the DCCEEW HQS methodology detailed in Appendix C of the Offset Strategy.</p>



EPA Services comment	Proponent response
<p>The EPA's recent <i>Public Advice Considering Environmental Offsets at a Regional Scale.pdf</i> (<a href="http://epa.wa.gov.au">epa.wa.gov.au</a>) is also relevant to the formulation of offsets.</p>	<p>Offset calculations have been detailed in Appendix D of the Offset Strategy.</p> <p>Section 7 of the ERD has summarised the Offset Strategy and calculations.</p> <p>SIMCOA acknowledges the EPAs recent report <i>Public Advice Considering Environmental Offsets at a Regional Scale.pdf</i> (<a href="http://epa.wa.gov.au">epa.wa.gov.au</a>) is also relevant to the formulation of offsets as a guide for the formulation of offsets.</p>

## 4. Response to Submissions received during the Public Comment period

This section provides a summary of the public submissions provided to SIMCOA by the EPAS regarding the Environmental Review Document for North Kiaka Quartzite Mine, proposed by SIMCOA. SIMCOA has provided a response to each issue raised, Table 5.

The public review period for the Proposal commenced on 10 April for a period of two weeks, ending 24 April, 2024. A total of 26 submissions were received, including six from the public (from three respondents). The primary issues raised in the submissions and advice received included environmental and social issues as well as issues focussed on questions of fact and technical aspects of the Proposal.

The key issues raised in the submissions include:

- The large number of unpublished reports referenced in the ERD that were not available for review may result in a further request for information or clarification.
- Demonstrate further steps to avoid, manage, mitigate and monitor direct and indirect impacts on the Coomberdale Chert Hills TEC listed as critically endangered.
- Further targeted surveys for Threatened and Priority flora and fauna, including *Zanda latirostris* (Carnaby's cockatoo, ranked endangered).
- Previous advice and comments for both noise and air quality have not been addressed adequately.
- Quantify offsets for different environmental values and provide an Offsets Strategy and Offsets Management Plan.

## 4.1 The Proposal - General comments

Table 5 General comments

No.	Submitter	Submission and/or issue	Response to comment
1	DWER	In the responses to the EPA Services request for information, the proponent referred to sections within or attachments to the ERD instead of providing a summary of how issues were addressed, with air quality as specific example. Consequently, DWER had to compare ERD versions to identify the added information in the revised ERD and further references to attachments that appeared to be relevant, which were incorrect in some instance (see Air Quality comments for an example). To streamline the review process, it is recommended that proponent responses should include an overview of the required details. Similarly, other factors that have been commented upon are addressed by the proponent in this manner. For example, noise and social surroundings as generalised to Section 5.7, and Greenhouse gas to Section 5.8.	SIMCOA notes this submission and where required this RFI has referred to specific sections.
2	DWER	The ERD makes reference in Section 12 to several documents that are unavailable for cross reference and to verify claims. Of the references listed, there are several unpublished reports and studies that cannot be examined for validity of data or claims presented. Provide copies of all the unpublished reports and studies to support the assessment.	The reference list has been updated to remove reference to “unpublished reports” where these have been provided as appendices in either the s38 referral application or the ERD.  The interpretation on ‘unpublished reports’ had been interpreted as the reports being published in peer reviewed journals.  All reports used to assess environmental impacts are ‘published’ in this environmental assessment process and hence are no longer referenced as ‘unpublished’.
3	DCCEEW	Maps and figures need to incorporate coordinates – either in the form of standalone feature labels or by including a ‘graticule’ or ‘grid’ – to make the location of the project clear. Maps and figures should also label major roads for contextual information of the area.	Where possible contextual information is provided. In some instances specific contextual information is not included so as not to detract from the details provided in the figures.  Spatial data will be provided to DCCEEW to accurately locate the Revised Proposal.

## 4.2 Flora and Vegetation

Table 6 Flora and Vegetation comments

No.	Submitter	Submission and/or issue	Response to comment
4	DCCEEW	As the flora and vegetation surveys for the draft ERD were not carried out within the last 5 years, the Department does not consider these surveys to be valid. The Department notes an updated flora and vegetation survey for the proposed action area will be completed in April 2024 and provided prior to the approval of the project. Specifically, the updated assessment needs to have regard to the following impacts to the below protected matters: <ul style="list-style-type: none"> <li>– Watheroo Wattle (<i>Acacia aristulata</i>) – Endangered</li> <li>– Diels' Daviesia (<i>Daviesia dielsii</i>) – Endangered</li> </ul>	Flora and Vegetation assessment provided by Trudgen and GHD (2024) has been updated to include the data from the Targeted Threatened and Priority Flora Survey undertaken in April 2024 (GHD 2024) particularly the following protected matters: <ul style="list-style-type: none"> <li>– Watheroo Wattle (<i>Acacia aristulata</i>) – Endangered</li> <li>– Diels' Daviesia (<i>Daviesia dielsii</i>) – Endangered</li> </ul>

No.	Submitter	Submission and/or issue	Response to comment
		<p>The timing of the flora survey of 24 April 2024 is deemed adequate. Please ensure that the updated survey is consistent with the <i>EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment</i> (Western Australian EPA, 2016).</p>	<p>The 2024 targeted Survey and report were undertaken to be consistent with the <i>EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment</i> (Western Australian EPA, 2016).</p> <p>The timing of the survey was considered adequate as it was a targeted survey for species that could be identified outside of the spring flowering season. SIMCOA will continue to undertake spring flora and vegetation surveys as the Proposal progresses.</p> <p>The Flora and Vegetation Report provided in Appendix G of the ERD, has been updated to include the data and findings reported in the April 2024 survey. (GHD and Trudgen, 2024, North Kiaka Flora and Vegetation Report).</p> <p>The GHD and Trudgen 2024 Report, Appendix G, presents the results from the surveys undertaken by M. Trudgen to comply with the 2016 technical guidance.</p> <p>The ERD, for reference purposes provides the previous surveys in Appendices H and I.</p> <p>The GHD (2024) April survey has not been prepared as a separate report.</p> <p>Section 5.2.3.2 of the ERD has been amended to outline the results from the April 2024 survey.</p> <p>Section 5.2.3.5.5 of the ERD has been updated to describe the Threatened and Priority Flora recorded in the April 2024 survey.</p> <p>The report for the 2024 Targeted Survey is provided in Appendix G.</p>
5	DWER	<p>The revised presentation of 2012, 2016 and 2017 Flora and Vegetation survey data is adequate to inform the assessment. However, the ERD references a 2024 Trudgen report regularly, which provides an updated review of the 2012, 2016 and 2017 flora and vegetation data. The report, referenced in the ERD as “Trudgen, M. E. (2024). Flora and Vegetation Survey at North Kiaka. Unpublished Report prepared for SIMCOA Operations Pty Ltd”, has not been provided for review and is not included in Appendix G (as listed in the Contents table of the ERD), therefore significant data for the assessment of the Flora and Vegetation Factor is missing. Section 5.2.4.2 of the ERD states that, “A targeted flora survey will be undertaken in April 2024 to update the database on the threatened and priority flora population in the North Kiaka DE.” No further information is provided and therefore the appropriateness is difficult to assess. <i>EPA Technical Guidance (2016a)</i> states that targeted flora survey should be undertaken at appropriate timing to intersect the flora being targeted (particularly for annual or cryptic species) and with appropriate survey effort (traverse spacing) to detect the flora. The April 2024 targeted flora survey should develop a list of species to be targeted with known flowering periods and habit and use this information to justify that the survey timing was appropriate to detect the targeted</p>	<p>The targeted flora survey was undertaken 9-12 April 2024 to record the occurrence of threatened and priority flora in the North Kiaka DE. This survey was undertaken under the EPA's 2016 technical guidance for the assessment of Flora and Vegetation.</p> <p>The species where targeted as advised by DBCA.</p> <p>The Flora and Vegetation Report provided in Appendix G of the ERD, has been updated to include the data and findings reported in the April 2024 survey. (GHD and Trudgen, 2024, North Kiaka Flora and Vegetation Report).</p> <p>The GHD and Trudgen 2024 Report, Appendix G, presents the results from the surveys undertaken by M. Trudgen to comply with the 2016 technical guidance.</p> <p>The ERD, for reference purposes provides the previous surveys in Appendices H and I.</p> <p>The GHD (2024) April survey has not been prepared as a separate report.</p> <p>The reference to the 2024 Trudgeon report was incorrectly cited in the Reference list and should read: GHD and Trudgen (2024) North Kiaka Flora and Vegetation Report.</p>

No.	Submitter	Submission and/or issue	Response to comment
		<p>species. The 2012, 2016 and 2017 Flora and Vegetation surveys also noted several species that may be significant for reasons other than conservation listing.</p> <p>DWER's previous advice (November 2023) suggested that those species should also be targeted in additional survey to determine their significance as per EPA policy (2016b).</p>	<p>SIMCOA was advised that the ERD could be published ahead of the April 2024 survey with the commitment that the survey would be undertaken, the report would be included in the final ERD and the results reported in the ERD. This information is provided in Appendix G of the ERD and Section 5 of the ERD.</p>
6	ANON-EC36-7UGY-W	<p>"The Coomberdale Threatened Ecological Community is listed as critically endangered and therefore should not be cleared to any extent. All remaining Coomberdale TEC should be placed under the strictest permanent protections. If something is critically endangered, it is one step away from extinction. Surely the only way to ensure that it continues to exist in perpetuity -- and, indeed, to aid it in recovering to the extent that it can be down-listed to 'endangered' -- is to stop destroying it."</p>	<p>SIMCOA acknowledges the environmental significance of the TEC. In consultation with DBCA and the EPA, SIMCOA has located the North Kiaka mine in such a way as to minimise the area of TEC impacted whilst looking to continue to produce an Australian critical mineral.</p> <p>In collaboration with DBCA, SIMCOA relinquished mining rights over high quality areas of the TEC, putting measures in place to protect 210.35 ha of the TEC as an Offset to be protected in perpetuity. SIMCOA will continue to consult with DBCA and local landowners on further opportunities that may arise to protect the TEC.</p>
7	DBCA	<p>'Given the limited time afforded to review the final ERD and the complexities associated with the proposal, the Department of Biodiversity, Conservation and Attractions (DBCA) has undertaken an expedited high-level review and provides the following advice on matters relevant to the department's <i>Biodiversity Conservation Act 2016</i> (BC Act) related responsibilities.'</p>	<p>SIMCOA was not responsible for the determination of the public comment period. This decision was made by the EPA and advised to SIMCOA.</p> <p>SIMCOA notes that there was an additional two month comment period made available by the EPA for key DMAs including DBCA to review the ERD, prior to the ERD being published for public submissions. Comments provided by the DMAs and SIMCOA's responses are provided in Appendix A of this document.</p> <p>The results of the targeted survey are provided in Appendix G of the ERD and provided in Sections 5 and 6 of the ERD.</p>
		<p>Of key interest to DBCA is that this proposal intends to clear 17.05 hectares of a threatened ecological community (TEC) protected under the BC Act. The Coomberdale Chert Hills TEC, ranked critically endangered, is highly restricted, occurring on the ridges and slopes of the chert hills of the Coomberdale floristic region. The TEC also provides important habitat for threatened and Priority flora species that have a highly restricted distribution. Considering the cumulative impacts and the other threatening processes on the Coomberdale Chert Hills TEC any incremental loss and degradation of the ecological community and its associated conservation values is considered significant. It is likely that the proposal, if implemented, will result in the permanent loss of the TEC due to the difficulties in rehabilitating areas with modified substrates.</p>	<p>SIMCOA recognises the importance of the TEC and has sought to minimise the impact of its proposed mining activities whilst continuing to produce an Australian critical mineral.</p> <p>SIMCOA notes that have been a number of discussions held between DBCA and the EPA over a period of time in relation to future SIMCOA mining activities and footprint. An agreement was reached on the proposed location for the North Kiaka mine (situated to minimise impact on the TEC).</p> <p>As part of that agreement SIMCOA committed to the DBCA and EPA to relinquish mining rights over the North Cairn Hill area (in addition to Cairn Hill advanced offset) in order that this area be included in the DBCA managed Cairn Hill conservation area.</p>
		<p>On 24 November 2023, extensive technical advice was provided by DBCA on the draft ERD to the</p>	<p>SIMCOA has avoided, managed, mitigated and monitored direct and indirect impacts on</p>

No.	Submitter	Submission and/or issue	Response to comment
		Department of Water and Environmental Regulation (DWER). DBCA notes that the advice provided has not been fully addressed in the final documentation. Consequently, DBCA reiterates that advice, including the need for the proponent to demonstrate further steps to avoid, manage, mitigate and monitor direct and indirect impacts on the Coomberdale Chert Hills TEC.	the Coomberdale Chert Hills TEC where possible. These measures are provided in Section 5.2.5 of the ERD.  SIMCOA will continue to consult with DBCA to identify further measures that may be required. SIMCOA notes that the April 2024 Targeted Flora and Vegetation survey indicated that vegetation condition had significantly improved in areas that SIMCOA had fenced as part of their management commitment for the protection of the Coomberdale Chert Hills TEC.
		Further targeted surveys are required for threatened and Priority flora and fauna, including <i>Zanda latirostris</i> (Carnaby's cockatoo, ranked endangered), and <i>Idiosoma</i> species to understand the potential impacts of the proposal. In addition, the final documentation does not include a comprehensive <i>Phytophthora</i> dieback assessment and management plan.	A targeted search for Black Cockatoos and Black Cockatoo habitat was undertaken in April 2024. The results are reported in the Terrestrial fauna and targeted black cockatoo habitat survey GHD 2024, Appendix M.  The SRE report advised that there is a reasonable understanding that <i>Idiosoma nigrum</i> is restricted to the northern wheatbelt and are not known to occur in the desktop study area. Other trapdoor species were found and trapped during the survey in November 2018, but neither <i>Idiosoma nigrum</i> or <i>Idiosoma dandaragan</i> were located. The range of methodologies undertaken by Invertebrate Solutions for this SRE survey enabled for a suitable search for the species. Each of the SRE sites was searched for mygalomorph spider burrows as part of the active searching and opportunistic searching throughout the entire project area was undertaken during the SRE field survey.  At a meeting held with DBCA and the EPA on 30 April 2024, the above advice was provided and the DBCA representative approved the finding.  The Dieback survey and management plan is described in Section 5.2.3.5.8.1 in the ERD.  The Phytophthora dieback survey, assessment and management plan for North Kiaka was completed by Great Southern Bio Logic in 2022. A Dieback Management Plan has not been provided in the ERD as this needs to be prepared within 12 months of proposed disturbance works to be valid. SIMCOA will include dieback hygiene practices in the EMP.
		Further information may be required for the Minister's consideration of an authorisation to modify the occurrence of a TEC (under section 45 of the BC Act) or to take threatened species (under section 40 of the BC Act). Any impacts assessed under the <i>Environmental Protection Act 1986</i> should be assessed in a manner consistent and aligned under the requirements of the BC Act.'	SIMCOA will seek guidance from DBCA's Species and Communities Program re: s45 of the BC Act (amending a TEC) and s40 of the Act (approval to take threatened flora).

## 4.3 Subterranean Fauna

No.	Submitter	Submission and/or issue	Response to comment
8	ANON-EC36-7UGZ-X	The document referenced as “Bennelongia. (2023). Moora Quartz Subterranean Fauna Baseline Survey Report. Unpublished Report for SIMCOA Operation Pty Ltd.’ should be made publicly available to adequately inform whether or not sampling recorded subterranean fauna.	<p>The Bennelongia report is not attached to the ERD as this report was prepared for a separate referral to DEMIRS for the existing approved mining below the water table at Moora Mine.</p> <p>SIMCOA does not propose to mine below the water table at North Kiaka, therefore the report was not attached as part of this assessment. If SIMCOA determine that it is required to mine below the water table at North Kiaka, the referred document will be made publicly available including all relevant technical reports.</p> <p>DEMIRS assessed SIMCOA's Proposal to mine below the water table and was approved. The Bennelongia Report was included in the Mine Proposal referral and was reviewed. The EPA was consulted during DEMIRS assessment of SIMCOA's Mine Proposal.</p>

## 4.4 Terrestrial Fauna

No.	Submitter	Submission and/or issue	Response to comment
9	DCCEEW	<p>As the fauna surveys for the draft ERD were not carried out within the last 5 years, the Department does not consider them to be valid.</p> <p>The Department notes an updated fauna survey for the proposed action area will be completed in April 2024 and provided prior to the approval of the project. Specifically, the updated targeted assessment needs to have regard to the following impacts to the below protected matter:</p> <ul style="list-style-type: none"> <li>– Carnaby's Black Cockatoo (<i>Zanda latirostris</i> listed as <i>Calyptorhynchus latirostris</i>) – Endangered</li> </ul> <p>The timing of the fauna survey of April 2024 is also consistent with the Referral guideline for 3 WA threatened black cockatoo species and deemed adequate. Please ensure that the updated survey is consistent with the Survey Guidelines for Australia's Threatened Birds.</p>	<p>The April 2024 Targeted survey noted that the foraging habitat for Carnaby's Black Cockatoo was recorded in both the impact area and offset area. Three potential trees were found in the offset site, no trees were found within the North Kiaka DE (no change from the GHD 2018 survey report).</p> <p>The Terrestrial Fauna Report provided in Appendix M of the ERD, has been updated to include the data and findings reported in the April 2024 survey. (GHD 2024, North Kiaka Terrestrial Fauna and Targeted Black Cockatoo Habitat Survey).</p> <p>The GHD 2024 Report, Appendix M, presents the results from both surveys (2018 and 2024) undertaken by GHD to comply with the 2016 technical guidance.</p> <p>The GHD (2024) April survey is not presented in a separate report.</p> <p>Section 5.5.4.1.5.3 of the ERD has been updated to include the information from the survey including the area of foraging habitat identified in the Revised Proposal, the area being impacted and area of habitat retained in the Offset.</p> <p>The 2024 Survey was undertaken to be consistent with Referral guideline for 3 WA threatened black cockatoo species and Survey Guidelines for Australia's Threatened Birds.</p>
10	DWER	This advice corresponds with DWER's previous advice on terrestrial environmental quality at the referral stage in July 2022 and at the draft ERD stage in November 2023. The information in the ERD is not adequate to inform the EPA's	The Terrestrial Fauna Report provided in Appendix M of the ERD, has been updated to include the data and findings reported in the April 2024 survey. (GHD 2024, North

No.	Submitter	Submission and/or issue	Response to comment
		assessment as there is an outstanding black cockatoo habitat assessment to review and the impacts to significant SRE habitat has not been adequately quantified. The mitigation and management measures in Table 9.2 of the ERD are mostly appropriate but DWER has not reviewed the Environmental Management Plan (EMP) in relation to Terrestrial Fauna (Appendix C). However, DWER can review the EMP once the other issues outlined are resolved.	<p>Kiaka Terrestrial Fauna and Targeted Black Cockatoo Habitat Survey).</p> <p>The GHD 2024 Report, Appendix M, presents the results from both surveys (2018 and 2024) undertaken by GHD to comply with the 2016 technical guidance.</p> <p>The GHD (2024) April survey is not presented in a separate report.</p> <p><i>Black cockatoos</i></p> <p>Section 5.5.4.1.5.2 of the ERD has been updated to include the findings from the 2024 survey including the area of foraging habitat identified in the Revised Proposal, the area being impacted by construction and area of habitat retained in the Offset.</p> <p>The 2024 Survey was undertaken to be consistent with Referral guideline for 3 WA threatened black cockatoo species and Survey Guidelines for Australia's Threatened Birds.</p> <p><i>SREs</i></p> <p>SRE's are described in Sections 5.5.3.1.5 and 5.5.3.1.6 of the ERD. SIMCOA confirms that these species were searched for during the SRE survey using a range of forms including pitfall traps, active searching, leaf litter collection and opportunistic collection including targeted burrow searches for mygalomorph spiders.</p> <p>The SRE report advised that there is a general understanding that <i>Idiosoma nigrum</i> is restricted to the northern wheatbelt and are not known to occur in the desktop study area. Other trapdoor species were found and trapped during the survey in November 2018, but neither <i>Idiosoma nigrum</i> or <i>Idiosoma dandaragan</i> were located. The range of methodologies undertaken by Invertebrate Solutions for this SRE survey enabled for a suitable search for the species. Each of the SRE sites was searched for mygalomorph spider burrows as part of the active searching and opportunistic searching throughout the entire project area was undertaken during the SRE field survey.</p> <p>At a meeting held with DBCA and the EPA on 30 April 2024, the above advice was provided and the DBCA representative approved the findings.</p> <p>The EMP reflects the monitoring, management and reporting commitments discussed in the ERD.</p>
11	DWER	The majority of DWER's previous advice around vertebrate fauna at the draft ERD has been addressed. However, the impacts on black cockatoo habitat may not be accurate as there is an outstanding report for a black cockatoo habitat assessment that is scheduled for April 2024 (ERD, p. 146). DWER is of the understanding that the reports from these surveys will be available for review at the response to submission stage.	<p>Section 5.5.3.1.4.2 of the ERD was amended to include the information from the survey including the area of foraging habitat identified in the Revised Proposal, the area being impacted by construction and area of habitat retained in the Offset.</p> <p>The 2024 Survey was undertaken to be consistent with Referral guideline for 3 WA threatened black cockatoo species and Survey Guidelines for Australia's Threatened Birds.</p>



No.	Submitter	Submission and/or issue	Response to comment
			The April 2024 black cockatoo foraging habitat assessment is included in Appendix M of this ERD.
	DWER (Invertebrate fauna)	<p>DWER's previous advice regarding invertebrate fauna within the referral and draft ERD has not been adequately addressed as the impacts on confirmed short-range endemic invertebrate (SRE) taxa and specific SRE microhabitats have not been mapped or quantified. The ERD identifies two confirmed SREs:</p> <p>The millipede, <i>Antichiropus 'Moora'</i> was recorded at only two locations in the 'mixed shrubland' habitat, at sites 2 and 7 (ERD, Figure 5.21).</p> <p>A trapdoor spider specimen tentatively identified as <i>Kwonkan wonganensis</i>? was collected from a single site (site 5) within the 'mixed shrubland' habitat and has been treated as a confirmed SRE in the ERD (p. 161). <i>Kwonkan wonganensis</i> is only known from Wongan Hills, which is 65 km from the Proposal site. However, as the specimen was not retained for genetic analysis (p.160) it cannot be confirmed whether this specimen is <i>Kwonkan wonganensis</i> or a new species that is potentially restricted to the Development Envelope (DE). The ERD proposes to avoid sites 2, 5 and 7 (ERD, Figure 5.21), however as the SRE specimens were removed during survey this does not necessarily represent the current distribution of the taxa within the survey area. While 'mixed shrubland' is the dominant habitat type in the DE, this is too broad to represent the potential distribution of the confirmed SREs, as the ERD states that these taxa most likely occur throughout the microhabitat rocky vegetated areas (ERD, p. 170). The 'rocky vegetated areas' have not been identified or quantified in the ERD.</p> <p>A map showing the SRE taxa records in relation to SRE habitat types, including 'rocky vegetated areas', should be provided to demonstrate that suitable habitat connecting the species' collection sites and nonimpact areas will remain if the Proposal is approved.</p> <p>Clearing for the Proposal will reduce the available habitat and known distribution of the confirmed SREs. Information should be provided on the predicted distribution of the confirmed SREs and the specific habitat impacted due to the Proposal should be quantified.</p>	<p>The SRE report did not provide mapping of the microhabitats for the Revised Proposal. Figure 5.21 of the ERD outlines the SRE habitats with the SRE recorded species for the North Kiaka DE.</p> <p>A meeting held with DBCA, DCCEEW and the EPA on 30 April 2024, confirmed that the findings of the SRE report were suitable for the impact assessment for this Proposal.</p>

## 4.5 Inland Waters

No.	Submitter	Submission and/or issue	Response to comment
13	ANON-EC36-7UGN-J	The submitter is concerned about impacts to the water quality and supply that is used for stock and domestic needs at properties in proximity to the existing and new mine. Submitter is seeking assurance of the continuity and quality of their water supply.	<p>SIMCOA does not propose to increase its approved water allocation and as such, SIMCOA has not applied to DWER to increase its allocation. SIMCOA does not anticipate any change to water availability because of mining activities (noting that variations in seasonal rainfall may impact availability).</p> <p>Water will continue to be abstracted from Moora Mine production or dewatering bores. SIMCOA will continue to monitor the quality</p>

No.	Submitter	Submission and/or issue	Response to comment
			of groundwater once North Kiaka Mine is in operation as described in the mitigation measures Section 5.6.5.1 of the ERD.
14	DEMIRS	<p>Geological mapping (Fig 5.13) indicates that the geology of the North Kiaka Project is analogous with the Moora Mine approved under Ministerial Statement 813. Materials characterisation of the geology below the water table at the Moora Mine has identified potentially acid forming material, and a risk of acid and metalliferous drainage. The Materials Characterisation Report by GHD (2023) acknowledged limited drill hole samples, reducing the scope of laboratory analysis. Limited samples were also taken regarding materials characterisation below groundwater and the Moora Mine. DEMIRS expects that further geochemical sampling is undertaken to obtain a comprehensive picture of the geology below the proposed North Mine, including ongoing operational waste characterisation. Further sampling will allow for further identification of suitable material for use in construction, such as the proposed abandonment bund, particularly given that dispersive material has been identified closer to the surface. Only one sample was leach tested and while risk of dissolution of minerals and saline discharge determined in the ERD was considered low, it is recommended that further analysis is undertaken and that the identified metals should be included in any groundwater monitoring regime. The southern portion of the pit does not appear to have been extensively sampled (Figure 2 of GHD 2023 – Materials Characterisation Report). DEMIRS would expect further and more comprehensive waste characterisation to be undertaken should the proponent intend to mine below the water table at North Kiaka. Presently, DEMIRS does not have significant concern regarding the underlying geology of the North Kiaka Mine; however, wishes to provide the following recommendations:</p> <ul style="list-style-type: none"> <li>– Further materials characterisation be undertaken.</li> <li>– Further hydrogeological exploration undertaken to determine groundwater levels at North Kiaka, given the risk identified from acid and metalliferous drainage and potentially acid forming materials below groundwater at the Moora Mine.</li> <li>– Further waste rock column leach tests undertaken to ensure potential risks of mobilisation of metals and saline discharge are well understood and can be suitably managed.</li> </ul>	<p>SIMCOA noted the DEMIRS comment and will review the need for further material characterisation drilling during the preparation of the application for a Mining Proposal for the North Kiaka Mine.</p> <p>Currently SIMCOA only proposes to mine above the water table at the North Kiaka Mine. SIMCOA notes that no potentially acid forming material has been detected with above ground mining activities at the Moora Mine. Section 5.6.5 of the ERD provides detail of the current and future impacts to Inland Waters. If SIMCOA determine that to meet resource demands that it is necessary to mine below the water table at North Kiaka or additional drilling identifies material of interest in the above water table resource, additional geochemical sampling and testing would be undertaken including:</p> <ul style="list-style-type: none"> <li>– Further materials characterisation</li> <li>– Further hydrogeological exploration undertaken to determine groundwater levels at North Kiaka</li> <li>– Further waste rock column leach tests at North Kiaka</li> </ul>

## 4.6 Air Quality

No.	Submitter	Submission and/or issue	Response to comment
15	ANON-EC36-7UGN-J	Concern has been raised about dust particles that will be generated by the mine. Assurance should be provided that mining activities do not pose a risk to the health and safety of residents and workers on properties in close proximity to the proposal.	<p>SIMCOA notes that Silica dust is a potential risk to human health. This is acknowledged in Section 5.1 North Kiaka Materials Characterisation (GHD 2023, Appendix F1) and in Section 5.1 Moora Mine Materials Characterisation (GHD 2022, Appendix F2).</p> <p>SIMCOA undertakes personal dust monitoring for silica dust as well as</p>

No.	Submitter	Submission and/or issue	Response to comment
			<p>locational recording in static locations around the crusher and other buildings. These results are submitted to DoH and DEMIRS, as part of SIMCOAS commitment to workers health and compliance.</p> <p>SIMCOA monitors dust levels at the Mine boundary (Part V licence requirement) and the results are well within the licence requirement as detailed in Section 5.9.5.2.1.1.1 in the ERD.</p>
16	DWER	<p>The modelling outcomes of the Air Quality Assessment (GHD, 2020) indicate that there are minimal adverse impacts on air quality associated with the proposal's emissions. However, the modelling was not updated, and it does not meet the requirements of DWER's Air Quality Modelling Guidance Notes, specifically in relation to accounting for the potential cumulative effects (including emissions sources from the Moora mine and background levels). Consequently, the likelihood of exceedances cannot be assessed, noting that there are inherently large uncertainties associated with estimating fugitive emissions. Fugitive dust modelling results should not be relied upon as the only consideration of risk when assessing this proposal.</p> <p>The distance between sensitive receptors and the proposal boundary does not meet the recommended separation distance of 1000m for extractive industries (Category 5 premises) as per EPA GS3, indicating higher risk. The department did not find some of the information requested by the EPA Services in the revised Environmental Review Document (ERD), including an updated air quality assessment. However, we found added information justifying the approach the proponent had taken in the air quality assessment. Some of the justifications do not align with the requirements of the department's modelling guidance notes. Due to the high levels of uncertainty associated with fugitive dust modelling, DWER generally recommends a continuous improvement approach to dust management, should a proposal be approved. We note that the revised ERD does not refer to an operational Dust Management Plan, which was recommended in previous DWER advice regarding air quality.</p>	<p>SIMCOA notes that the air quality assessment included in the Air Quality Report (GHD, 2020) was prepared using the <i>Air Quality Guidance Notes</i> (DoE, 2006), as well as the <i>Draft Guideline Dust emissions</i> (DWER, 2021) and the <i>Environmental Factor Guideline: Air Quality</i> (WA EPA, 2020).</p> <p>Section 5.9.4 of the ERD has included detail sourced from the Air Quality Report (GHD, 2020) to make the assessment of potential impacts from the Revised Proposal.</p> <p>The data were sourced from Section 3.3 of the Air Quality Report (GHD, 2020, Appendix R).</p> <p>The Report advises, Section 3.3.1, that background air quality monitoring is not available for the Revised Proposal, and the assessment only modelled incremental impacts. Section 3.3 of the Air Quality Report discusses the license condition of the Moora Mine, with the measurements taken over 15-min periods of TSP only and cannot be incorporated to 24-hour or annual averages.</p> <p>SIMCOA will maintain a continuous improvement approach to managing fugitive dust and will prepare an Operational Dust Management Plan for both Moora Mine and North Kiaka mine, as advised in Table 3.12 of the EMP refer to Appendix C of the ERD.</p>
17	DWER	<p>The following requested information was not found in Section 5.9 of the revised ERD: 'Assess the potential cumulative impacts of the proposed operation, including existing emission sources from the Moora mine and background pollution levels, by incorporating these factors into the air quality modelling assessment.' However, the following added information provided in Section 5.9.5.2.1.1.1 seems to be a justification for not including cumulative impacts and background emissions in their modelling assessment: SIMCOA does not consider the Moora Mine air emissions to be significant in Part IV of the EP Act and suggests that air emissions should continue to be assessed under the existing Part V licence. TSP monitoring at Moora Mine is presented in Section 3-3 of the Air Quality Assessment (GHD, 2019). Refer to Row 18 of table xx in the assessment which details why</p>	<p>Section 5.9.5.2.1.1.1 of the ERD describes the potential impacts of the Revised Proposal.</p> <p>SIMCOA does not consider the Moora Mine air emissions to be significant in its Part IV application and understands that emissions would continue to be assessed under the approved Part V licence as the quartz crushing plant will continue to be located at the Moora Mine.</p> <p>TSP monitoring at Moora Mine is presented in Section 3.3 of the Air Quality Report, GHD 2020. There are limited dust emissions anticipated from the hard rock blasting and quarrying activities proposed at the North Kiaka Mine and SIMCOA will continue the</p>

No.	Submitter	Submission and/or issue	Response to comment
		<p>TSP has not been added as a background concentration to model the incremental impacts. Cumulative impacts from Moore Mine and North Kiaka Mine operations sourced from the Air Quality Assessment (GHD, 2019) are included in table x of section 10. Refer to Section 5.2 of the Air Quality Assessment (GHD, 2019) which is included in Appendix R for further information. It seems that the report Air Quality Assessment (GHD, 2020) (Appendix R) was erroneously cited above as Air Quality Assessment (GHD, 2019).</p> <p>Regarding the above justification for not including background TSP, we were unable to locate “Row 18 of table xx” in Appendix R. However, we note in Section 5.9.4.1 that the current licence condition for the Moora Mine requires TSP measurements taken over 15-minute periods only and as a result, these could not be incorporated to the 24-hour or annual averages.</p> <p>Regarding cumulative impacts, we were also unable to locate <i>table x of section 10 in the revised ERD</i>.</p>	<p>practice of wetting down blasted rock before transport to the crushing facility.</p> <p>SIMCOA undertook preliminary licencing discussions with the DWER in 2023 with regards to the North Kiaka Mine, and it was agreed that a suitable licensing approach would be to incorporate the North Kiaka mine into the existing Part V licence. This would allow DWER to continue to regulate dust emissions for the Proposal. SIMCOA intends to make a licence amendment application to the DWER after receiving part IV approval for the Proposal. Alternatively, should the DWER not want to proceed with a licence amendment, dust emissions could be managed via the Mining Proposal that will be required to be approved by DEMIRS.</p> <p>Section 5.9.3.2.1 of the ERD notes that the current licence condition for the Moora Mine requires TSP measurements taken over 15-minute periods only and as a result, these could not be incorporated to the 24-hour or annual averages.</p> <p>Refer to Section 5.2 of the Air Quality Report (GHD, 2020) which is included in Appendix R for further information.</p> <p>As detailed in Section 5.9.3.2.1 of the ERD, dust monitoring at Moora Mine undertaken since 2014 indicates that the baseline air quality has consistently compliant with the licence condition of 1000 ug/m<sup>3</sup>. Results from the most recent dust monitoring at Moora Mine are provided in Section 5.9.3.3.4 of the ERD.</p> <p>Cumulative impacts are described in Table 10.2 in Section 10 of the ERD.</p>
18	DWER	<p>Activities associated with the North Kiaka Mine and emissions and discharges will be outside of the scope of Part V regulation. The proposal will consist of an expansion to the existing mine development envelope (Moora Mine) to include the North Kiaka Mine, with no prescribed activities (i.e. crushing or screening, processing, dewatering etc) to occur at the North Kiaka Mine project site instead. Activities appear to be limited to open cut ore mining above the water table (no mine dewatering) with the ore processed offsite (crushing/screening at the Moora Mine and processing at SIMCOA’s Kemerton Smelter).</p> <p>As the Moora Mine is currently subject to Licence L6149/1988/9 under Part V, Division 3, Category 3 of the <i>Environmental Protection Act 1986</i>, and there will not be an increase to the throughput of crushing and screening even during periods where both the Moora Mine and North Kiaka Mine are operating concurrently, there is no requirement for SIMCOA to seek an amendment to the L6149/1988/8 licence, other than to extend the licence duration (assuming operations commence in 2024 with an 18-year life of mine).</p>	<p>SIMCOA undertook preliminary licencing discussions with the DWER in 2023 with regards to the North Kiaka Mine, and it was agreed that a suitable licensing approach would be to incorporate the North Kiaka mine into the existing Part V licence. This would allow DWER to continue to the Proposal under Part V of the EP Act. SIMCOA intends to make a licence amendment application to the DWER after receiving part IV approval for the Proposal. Alternatively, should the DWER not want to proceed with a licence amendment, the North Kiaka Mine could be managed via the Mining Proposal that will be required to be approved by DEMIRS.</p> <p>When preparing the Part V licence amendment application (operating licence L6149/1988/9) SIMCOA will seek to extend the licence duration to 2042.</p>

## 4.7 Social Surroundings

No.	Submitter	Submission and/or issue	Response to comment
19	ANON-EC36-7UGN-J	Concern has been raised about the noise and vibrations caused by both the daily activities around rock processing, machinery and vehicles, and from blasting. The submitter is concerned about the permitted operational hours of 12 hours per day, 6 days per week having an impact on residents of nearby homesteads. Vibrations from intermittent blasting can impact nearby residents due to the unanticipated noise, with dwellings potentially experiencing window rattling, floor vibrating, disturbed household items and furniture, and inconveniences to residents with roadblocks in place when blasting occurs.	<p>SIMCOA does not intend to modify its existing operational hours when developing the North Kiaka Mine. Processing of the quartz will continue to be undertaken at the Moora Mine.</p> <p>SIMCOA has not received any recent complaints about noise and vibration from its existing operations. There is no intention to implement roadblocks when blasting occurs.</p> <p>Section 5.7.3.1.3 of the ERD outlines the requirements for noise and vibration under SIMCOA's existing (Part V) environmental licence. The licence for Moora Mine requires blasts vibration levels be below 5mm/sec peak particle velocity for 95% of blasts, and below 10mm/sec peak particle velocity for all blasts at the nearest noise sensitive premise.</p> <p>SIMCOA performs periodic blast noise and vibration monitoring to assess compliance with its operating licence.</p> <p>Monitoring during blasting at Moora Mine over the past three (3) years has shown compliance with licence conditions. The most recent result at the Goonderoo Homestead in 2022 showed no events over 2.54mm/sec peak particle velocity.</p> <p>Section 5.7.5 of the ERD describes the mitigation measures SIMCOA is currently implementing at Moora Mine and would intend to apply at North Kiaka Mine.</p> <p>SIMCOA will continue to regularly liaise with nearby residents to understand and act on any issues they may have with the existing Moora Mine and the proposed North Kiaka Mine.</p>
20	ANON-EC36-7UGN-J	Concern has been raised by the residents of a nearby sensitive receptor that the revised mining operations will result in further degradation of visual amenities near the proposal site, leaving the surrounding areas no longer aesthetically pleasing. The submitter expressed concern about the visual impact from the mining operations, including the forming of rock piles, the visibility of the processing plant from paddocks and driveways on nearby properties, and the location of the mine abandonment bund in close proximity to the residents' garden. The submitter is seeking assurance that the visual amenities will be protected against impacts from both the construction of the abandonment bund at Moora Mine and the project, and from the operations of the revised proposal.	<p>SIMCOA has managed the potential impact of the activities on visual amenity by siting the North Kiaka mine and waste rock landforms within the lowest point of the landscape, to minimise potential visual impact of SIMCOA's operations on surrounding landowners. SIMCOA will in due course rehabilitate the Tonkin WRD using species found in the TEC. SIMCOA has commenced rehabilitation of the existing Moora WRDs with TEC species and has improved visual amenity accordingly.</p> <p>The Moora Mine abandonment bund will be designed and constructed to pose the least visual impact on the surrounding landscape by retaining vegetation where possible, while maintaining the safety aspect around the closed pits.</p> <p>Section 5.7.5 of the ERD describes the measures in place to manage impacts to visual amenity.</p> <p>SIMCOA will consult with residents where visual amenity is considered to be impacted as a result of SIMCOA's activities.</p>

No.	Submitter	Submission and/or issue	Response to comment
21	DWER	<p>It appears that the proponent has tried to address the noise-related issues in Section 5.7 of the ERD. DWER's review of the updated ERD indicates that issues raised by DWER in 2022 regarding noise have not been satisfactorily addressed/responded, due to the following reasons:</p> <ol style="list-style-type: none"> <li>1. Table 5.47 in Section 5.7 seems to indicate that a copy of the 2018 Moora Noise Survey report is now given in Appendix R of the ERD. However, Appendix R of the ERD is the Air Quality Assessment report. While Appendix Q is a noise report and the subtitle of this appendix seems to refer to the Moora Noise Survey 2018 Final, this report is actually the GHD 2020 report that DWER reviewed and commented on in 2022;</li> <li>2. The explanation for the higher LA<sub>10</sub> measured background noise levels at night-time than in the evening seems to be given in Section 5.7.4.1.3 of the ERD, which states that: "Given Moora Mine was not operating when the monitoring occurred (since it was outside of operating hours) all noise recorded at these locations is taken to be external sources. These external sources are likely attributable to road traffic and domestic activities around the residential properties where the loggers were located rather than associated with mining operations or possibly a passing train". This explanation comes from an assumption, not an observation on site; and</li> <li>3. While the updated ERD indicates that 'operations will preferentially occur during daylight hours (7:00am to 5:00pm, Monday to Friday)', it does not clearly exclude the operation before 7:00am, neither demonstrate how the noise emissions will be managed to comply with the night-time assigned noise levels at all neighbouring residences. DWER notes that Simcoa has already purchased and vacated one neighbouring residence located to the east of Moora Mine and along the southern border of the North Kiaka project, which effectively reduces the number of neighbouring sensitive premises to only two. However, DWER also notes that the potential night-time noise exceedance will occur at the neighbouring residence located at the northwest of the North Kiaka project (R3), as predicted by GHD in the 2020 report. Vacating the residence to the east does not address the potential noise exceedance to the northwest at night.</li> </ol> <p>DWER's major concern of this proposal is the noise compliance at night, which has been predicted to be exceeded at one neighbouring residence (R3). Based on the noise regulations outlined in the <i>Environmental Protection (Noise) Regulations 1997</i>, night-time assigned noise levels apply between 22:00pm and 7:00am Monday to Saturday and 22:00pm and 9:00am Sunday and Public Holidays. The proponent is potentially not aware of the night-time period specified in the noise regulations, when it states in the first paragraph of Section 5.7.4.1.3 of the ERD that: "Moora Mine operates between 6:30am and 5:30pm Monday to Friday with the occasional Saturday operations between 6:30am and 5:30pm. There are no night-time operations at the</p>	<p>SIMCOA has provided amendments / clarifications to response to DWER comments.</p> <ol style="list-style-type: none"> <li>1. The 2018 Moora Noise Survey report was attached to the previous RFI response. It is included in Appendix R of the final ERD.</li> <li>2. A clarification regarding the higher LA<sub>10</sub> measured background noise in night-time has been added to Section 5.7.3.1.3 of the ERD. The measurements made by GHD during the survey (GHD, 2020) were assessed by an acoustic engineer who was suitably qualified. The assessments of background noise contributions were made during the survey and onsite measurements and were based upon professional judgement and not assumptions.</li> <li>3. SIMCOA confirmed that the majority of Moora Mine operations occur during daylight hours (7:00am to 5:00pm, Monday to Friday) with noise prior to 7am attributed to generators starting up and vehicles arriving for prestart meetings (held at 6:30am) prior to site operations commencing at 7am. North Kiaka Mine will only be operating during daylight hours (7:00am to 5:00pm, Monday to Friday) and the access is at the Southern extent of the DE and away from sensitive receptor R3 to the NE of the North Kiaka DE. Section 5.7.5 of the ERD describes the mitigation measures which will be undertaken at North Kiaka if any access is required prior to 7am including: <ul style="list-style-type: none"> <li>• Construction work carried out in accordance with Section 6 of AS 2436-2010</li> <li>• Equipment used is the quietest reasonably available</li> <li>• All sensitive receptors notified of works at least 24 hours ahead</li> <li>• Preparation and approval of a construction noise management plan (internal) at least 7 days prior</li> <li>• Best available technology will be used to minimise noise and vibration emissions from plant and equipment</li> <li>• Where plant and equipment are housed in buildings (or under roofed structures), the design will incorporate sound insulation properties.</li> </ul> </li> </ol>

No.	Submitter	Submission and/or issue	Response to comment
		<p>mine". Based on noise regulations, operation prior to 7:00am is considered as a night-time operation.</p> <p>DWER's summary of concerns regarding noise are:</p> <ul style="list-style-type: none"> <li>– The 2018 Moora Noise Survey report has not been made available in the ERD.</li> <li>– The proponent's explanation for the higher LA10 noise levels observed is only from a speculation, not from actual observation.</li> <li>– DWER considers operation prior to 7:00AM as night-time operation.</li> </ul> <p>As discussed previously, as well as above, noise compliance for the night-time operation has not been satisfactorily demonstrated yet.</p>	
22	DWER	<p>Activities associated with the North Kiaka Mine and emissions and discharges, including noise, will be outside of the scope of Part V regulation. Refer to DWER's comment on air quality (Submission No. 18)</p>	<p>Noted</p> <p>SIMCOA undertook preliminary licencing discussions with the DWER in 2023 with regards to the North Kiaka Mine, and it was agreed that a suitable licensing approach would be to incorporate the North Kiaka mine into the existing Part V licence. This would allow DWER to continue to regulate the environmental aspects of the Proposal in addition to the crushing activities at the Moora Mine. SIMCOA intends to make a licence amendment application to the DWER after receiving part IV approval for the Proposal. Alternatively, should the DWER not want to proceed with a licence amendment, environmental aspects associated with the North Kiaka mine can be managed via the Mining Proposal that will be required to be approved by DEMIRS</p>

## 4.8 Offsets

No.	Submitter	Submission and/or issue	Response to comment
23	DCCEEW (Offset strategy)	<p>An offset strategy is required for the following protected matters:</p> <ul style="list-style-type: none"> <li>– Carnaby's Black Cockatoo (<i>Zanda latirostris</i> listed as <i>Calyptorhynchus latirostris</i>) – Endangered</li> <li>– Watheroo Wattle (<i>Acacia aristulata</i>) – Endangered</li> <li>– Diels' Daviesia (<i>Daviesia dielsii</i>) – Endangered</li> </ul> <p><b>Offset assessment guide (calculator)</b></p> <p>The offset assessment guide (OAG) is a tool that has been developed for assessment officers in the Department to assess the suitability of offset proposals. The OAG is made available to proponents to assist in planning and estimating future offset requirements. Impact site and offset site survey information provided in the ERD is used to derive input values. Copies of proponents own Excel spreadsheet OAG assessments or references to OAG scores determined by the proponent should not be included in the ERD.</p> <p><b>Impact calculator</b></p> <p>Habitat quality score calculations for Carnaby's Black Cockatoo habitat should be based on the</p>	<p>The proposed offsets were discussed at a meeting held with DCCEEW, EPA and DBCA representatives on 14 May 2024. This meeting confirmed the suitability of the Offsets proposed for this Proposal. The Offset Strategy has been finalised on this understanding. The Strategy is provided in Appendix T.</p> <p>The Offset Strategy has been prepared for the protected matters using the DCCEEW offset assessment guide (OAG). Section 4.1.1 of the Offset Strategy outlines the Commonwealth legislative context.</p> <p>Section 3.1 of the Offset Strategy describes the Proposal.</p> <p>Section 3.3 of the Offset Strategy outlines the impact avoidance</p> <p>The impact calculations are described in Section 7 of the Offset Strategy</p> <p>The habitat scoring in Section 5.1.5 of the Offset Strategy has been based on the DCCEEW HQS methodology detailed in Appendix C of the Offset Strategy.</p>

No.	Submitter	Submission and/or issue	Response to comment
		<p>Habitat Scoring System for WA black cockatoo foraging habitat available from the Department on request.</p> <p><b>Future quality without offset and confidence in result</b></p> <p>Reduced foraging is outlined as potentially being caused by several factors including climate change, spray drift, grazing and others.</p> <p>Additional information will need to be provided to clearly justify the magnitude of the reduced foraging impact that these factors will cause. The Department notes, based upon the information currently provided by proponent, that the habitat quality for Carnaby's Black Cockatoo will remain at a 10 out of 10 (Pristine) throughout the 20-year period. The Department's confidence that the quality will remain at the same value is based on the management commitments proposed by the proponent. Management's actions to be undertaken at the offset site (for the impacts that will be affecting the future habitat quality) will need to be presented in the Offset Strategy to support the offset objectives.</p> <p>Details of the management actions should be further outlined in the Offset Management Plan (OMP), along with the monitoring and contingency measures which support an assessment of high confidence in the offset site succeeding.</p> <p><b>Time until ecological benefit</b></p> <p>Time until ecological benefit should be 0 as the quality is already at a 10 and management is expected to be implemented prior to the clearing of the impact site.</p> <p><b>Watheroo Wattle and Diels' Daviesia</b></p> <p>Information on the extent of impacts and management will need to be provided for each of the impacted protected matters.</p> <p><b>General</b></p> <p>The offset strategy must include the following details:</p> <ul style="list-style-type: none"> <li>– description of the proposed offset site(s) including location, size, condition and relevant ecological/species habitat features, landscape context and cadastral boundaries of the offset site(s) (supported by mapping).</li> <li>– evidence of the presence of, or usage by, relevant protected matter(s) on, or adjacent to the offset site(s), and the presence and quality of habitat for protected matter(s) on the offset site.</li> <li>– these details should be based on recent site surveys or analysis of available contemporary site data, reference to research, studies or other publications relevant to the protected matter(s) and include reference to the site survey and habitat assessment methodology used.</li> <li>– current and likely future tenure of the proposed offset site and details of how the offset site will be legally secured for the full duration of the impact.</li> </ul> <p>The Department can share an example of a recently approved offset strategy and OMP with the proponent on request.</p>	<p>Offset calculations have been detailed in Appendix D of the Offset Strategy.</p> <p>Section 7 of the ERD has summarised the Offset Strategy and calculations.</p>



No.	Submitter	Submission and/or issue	Response to comment
24	DCCEEW (Offset Management Plan)	<p>The Department notes that following agreement on the suitability of the offset site/s, an OMP will need to be provided by the proponent. The OMP should include preliminary and final completion criteria as well as detailed management measures for the site/s. Additional general requirements of an OMP can be found below. The Department considers that the following information would need to be included in the OMP:</p> <ul style="list-style-type: none"> <li>– Weeds/dieback and feral animal management</li> <li>– Habitat improvement/restoration management if relevant</li> <li>– Monitoring and adaptive management</li> <li>– Fire Management</li> </ul> <p>The Department would be able to share with the proponent an approved project which provided an OMP which adequately addressed the Departments comments and is a suitable example for meeting the requirements requested. Details and justification demonstrating how the proposed direct offset will maintain or improve the viability of the protected matter(s) consistent with the EPBC Environmental Offsets Policy, 2012 and EPBC Act Offsets Assessment Guide. This includes, but is not limited to:</p> <p>offset completion criteria (i.e. environmental outcomes) to be achieved, and reasoning for these in reference to relevant statutory recovery plans, conservation advices, and threat abatement plans. This information could be provided in a table format.</p> <p>milestones to demonstrate adequate progress towards achieving the offset completion criteria.</p> <p>specific environmental management activities and mitigation measures that will attain and maintain the completion criteria, including the management of threats to relevant species and the timing of actions. (e.g. reduce the invasive weed coverage on the offset site to 5% within x years following commencement of the action; implement an annual non-native feral pest control program over a time period). This information could be provided in a table format.</p> <p>baseline survey information to determine the presence of relevant protected matters and the extent and quality of the respective habitat(s) at the offset site(s) in accordance with the Department's survey guidelines or using a scientifically robust and repeatable methodology.</p> <p>a monitoring and corrective action program to measure the success of the environmental outcomes, which must include performance indicators, milestone outcomes, monitoring requirements, trigger values, corrective measures, and identified roles and responsibilities in accordance with the requirements in section 3 of the Department's Environmental Management Plan Guidelines:</p> <p><a href="https://www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines">https://www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines</a></p> <p>evidence of how the proposed offset completion criteria for the proposed offset will be achieved and maintained over the duration of the impact.</p>	<p>At a meeting held 14 May 2024, the EPA confirmed with SIMCOA, DCCEEW and DBCA that the Cairn Hill Reserve (advanced SIMCOA offset) and the proposed Cairn Hill North Offset can be utilised for the North Kiaka Revised Proposal.</p> <p>When the Cairn Hill North offset has been incorporated into Cairn Hill Reserve, DBCA will be responsible for ongoing management.</p> <p>SIMCOA will work with DBCA to develop an OMP which is suitable for the management of a Reserve.</p> <p>This OMP will describe how SIMCOA will work with DBCA (and local landowners where relevant) to identify opportunities to improve the Offset area via management techniques such as feral animal and weed control, and the rehabilitation/restoration of areas close to the Cairn Hill offset. The OMP will include any relevant measures for:</p> <ul style="list-style-type: none"> <li>– Monitoring and adaptive management</li> <li>– Fire Management</li> <li>– Dieback management</li> </ul> <p>The OMP will include any relevant:</p> <ul style="list-style-type: none"> <li>– Ongoing surveys</li> <li>– Monitoring and Evaluation Measures</li> </ul>

No.	Submitter	Submission and/or issue	Response to comment
		<p>justification of how the proposed offset package meets the requirements of the EPBC Act Offsets Assessment Guide. This information should include an appropriate reference to the Offset Guide (i.e. offset calculator and justification of figures used in the calculation), as well as the following:</p> <p>evidence of the likely effectiveness of any proposed management actions (i.e. rehabilitation/restoration/re-creation of habitat) to support quality improvement and/or maintenance of the proposed offset site(s) for the relevant protected matter(s);</p> <p>the time over which management actions will deliver the proposed improvement or maintenance of habitat quality for the relevant protected matter(s);</p> <p>the risk of damage, degradation or destruction to any proposed offset site(s), in the absence of any formal protection and/or management, over a foreseeable time period. This information is important in determining the comparative benefit of a proposed offset; and</p> <p>evidence to support 'confidence in results' for averted loss and quality scores.</p> <p>justification of how the proposed offset package meets the requirements of the EPBC Act Offsets Policy, 2012.</p>	
25	DCCEEW	<p>(offset site duplication)</p> <p>The proponent has stated their intention to use an offset site (Cairn Hill) that was previously allocated to another project (EPA 1783). To this end, further information is required on the Cairn Hill site's status before it can be considered a component of the offset strategy for the proposed action.</p> <p>The information must include evidence that the Cairn Hill site has approval from the legislating party (State government and/or Commonwealth government) to be removed as an offset component of the other project it was being used for.</p>	<p>At a meeting held 14 May 2024, the EPA confirmed with SIMCOA, DCCEEW and DBCA that the Cairn Hill Reserve (advanced SIMCOA offset) and the proposed Cairn Hill North Offset can be utilised for the North Kiaka Revised Proposal.</p> <p>Confirmation that the Cairn Hill site has approval to be used as an offset for the Revised Proposal significant residual impacts from the legislating party (EPA) is described in Section 2.3 of the Offset Strategy.</p>
26	DBCA	<p>A series of proposed actions to reduce the significant residual impacts of the proposal, including offsets, has been provided (Sections 7, pages 215-225 in the draft documentation / pages 233-245 in the Final ERD documentation).</p> <p>DBCA notes that the calculation of the residual impacts along with the offset requirements may be inconsistent with current policy and guideline. For example, the proponent has proposed to offset the significant residual impacts on the threatened fauna, Carnaby's cockatoo, and the Coomberdale Chert Hill TEC by protecting and maintaining Cairn Hill Nature Reserve (class A) and Cairn Hill North (an area directly north of the nature reserve). It is unclear what protection mechanisms are being proposed, or whether the existing reserve is appropriate as an offset.</p> <p>Although the proposed offset sites are stated to contain individuals of the threatened flora species proposed to be impacted, it is unclear if offset requirements for the species were calculated and the if the number of individuals at the proposed offset sites are current and accurate. As an offset strategy has not yet been presented, it is advised</p>	<p>A meeting held 14 May 2024 with DCCEEW, EPA and DBCA representatives confirmed that the proposed Offsets can be based to offset the predicted significant residual impacts as a result of this Proposal. Confirmation from the legislating parties has been noted in Section 2.3 of the Offset Strategy.</p> <p>The Offset Strategy has been prepared on this understanding.</p> <p>The actions proposed to reduce the residual impacts are discussed in Section 3.3 of the Offset Strategy.</p> <p>Section 3.3 of the Offset Strategy outlines the impact avoidance measures.</p> <p>Offset calculations have been updated to match the current policy and guidelines as described in Section 8.1 of the Offset Strategy</p> <p>Individuals of threatened flora species identified in the April 2024 (GHD and Trudgen 2024) are listed in Section 3.3.2 of the Offset Strategy</p>

No.	Submitter	Submission and/or issue	Response to comment
		<p>that once the proposed offset measures are determined by DWER to meet the WA environmental offsets policy and guidelines, DBCA is provided with the opportunity to comment on possible conservation offset measures aimed at mitigating the residual impacts of the proposal on threatened flora, threatened fauna and TECs. It should be noted that formal reservation of land under the <i>Conservations and Land Management Act 1984</i> (CALM Act) is subject to processes under the <i>Land Administration Act 1997</i>, which require the support of the Department of Energy, Mines, Industry Regulation and Safety for a change in land tenure from private land to conservation reserve. There is a risk that the reservation of the offset site may not be supported across Government, and this should be appropriately considered by the EPA and DWER during the assessment. If there is further consideration or development of offsets for the proposal, it is requested that DBCA is consulted as this may relate to matters pursuant to the department's CALM Act and BC act responsibilities.</p>	<p>The habitat scoring in Section 6.5 of the Offset Strategy has been based on the DCCEEW HQS methodology detailed in Appendix C of the Offset Strategy.</p> <p>Offset calculations have been detailed in Appendix D of the Offset Strategy.</p> <p>Section 2.2 of the Offset Strategy details the support from across government including DEMIRS and DBCA for the ongoing management of the offset.</p> <p>Section 7 of the ERD has summarised the offset strategy and calculations.</p> <p>SIMCOA is committed to working with the DBCA to develop an appropriate Offset Management Plan for the Cairn Hill Conservation Area, and to gaining the support of the DCCEEW for the Offset Management Plan.</p> <p>SIMCOA confirms that the reservation of the offset site is supported across Government, as advised on 14 May 2024.</p>

# **Appendix A**

**Previous Requests for Further Information**

## 2021 Request for Further Information

Key Environmental Factor	Additional Information	Source/Date	Section
Flora and Vegetation	The survey provided in the Flora and Vegetation Assessment - Appendix F submitted in June 2022, does not meet the EPA guidance for targeted flora surveys and vegetation assessment. Provide the report prepared in accordance with <i>EPA Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment</i> . The vegetation classification and descriptions are comprehensive and suitable for assessment: however, the surveys were undertaken prior to the publication of the EPA's technical guidance, and as such, they do not meet the guideline requirements. The assumptions and conclusions derived from data representing the number of locations where species were recorded, rather than counts of individuals.	RFI	Refer to Table 5.7 and Section 5.2 which include information regarding survey timing and limitations. This information provides justification that the existing vegetation and flora surveys are consistent with EPA guidance.
	A survey targeting DBCA threatened and priority species database search, other significant species described in the EPA's Technical Guidance, and those noted in the Flora and Vegetation Assessment (Appendix F, Table 5) is required.	RFI	
	The extent of likely impacts on threatened flora is unclear. The significant flora occurring outside the disturbance footprint should be documented and likely direct and indirect impacts to these species should be considered.	RFI	Refer to Figure 5-7 and Section 5.2.5 for comparison of direct and potential indirect impacts.
	The Coomberdale TEC (Threatened Ecological Community) has been nominated for listing as Critically Endangered under the <i>Biodiversity Conservation Act 2016</i> (BC Act), warranting in depth technical consideration and precautionary evaluation to evaluate impacts from the proposal.	RFI	Refer to Section 5.2.5 for potential impacts, and Section 5.2.7 and 5.2.6.3 for assessment and significance of residual impacts
	If the above information is not provided, or if surveys determine risk of impact on significant flora and vegetation species, Environmental Management Plans detailing the management and mitigation of impacts on significant flora and vegetation should be prepared in accordance with <i>Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans</i> and submitted for assessment. This should include a commitment to avoid or minimise impacts to significant flora and vegetation species and consideration of offsets for any significant residual impacts to TEC and threatened flora.	RFI	The Environmental Management Plan is provided as Appendix C.
Terrestrial Fauna	The Figure 2 Appendix M should be revised to label the individual species rather than their listing status and Figure 3 should clearly illustrate fauna habitats.	RFI	GHD's (2021a) in Appendix M Figure 2 (updated) shows individual species. Figure 4 (Fauna Habitats) shows all fauna habitats so no change has made
	Targeted desktop search for any known locations of breeding or nesting sites of Carnaby's Black Cockatoo within 12 kilometres (km) of the Development Envelope (DE) should be undertaken and must be included in the referral documents.	RFI	Section 5.5.4.1.5. Desktop search of Cockatoo Roosting and Breeding sites is shown in Figure 5.19 (12 km buffer)

Key Environmental Factor	Additional Information	Source/Date	Section
	The information on Short Range Endemics (SRE) are incorrectly discussed under 'other environmental factors' in section 4 of the referral supporting document. It should be noted that the SREs are a component of EPA's Environmental Factor Guideline - Terrestrial Fauna and should be correctly discussed.	RFI	Section 5.5.4.1.6 has been included within the Terrestrial fauna section
	The predicted distribution range of <i>Bothriembryon</i> and <i>Antichiropus</i> species and their percentage of habitat likely to be lost due to proposal should be assessed and discussed.	RFI	Section 5.5.4.1.6 Broader mapping or assessment has not been completed
	Genetic analysis needs to be conducted to confirm whether the spider specimen collected is the same species <i>Kwonkan wonganensis</i> or a new species.	RFI	Specimen not retained to be tested
	The presence of Eucalypt woodlands of the Western Australian Wheatbelt Priority Ecological Community (PEC) should be recognised and discussed in referral supporting document. EPA notes that PEC have been identified to occur within the DE.	RFI	Addressed in Flora and Vegetation Section 5.2.4.5.4.1
	The assessment of the distribution and quality of, and potential impacts on the PEC should be undertaken.	RFI	Addressed in Flora and Vegetation Section 5.2.5
	Offsets that are required for the clearing of Carnaby's Black Cockatoo foraging habitat should be determined.	RFI	Offset Section 7.3. Figure 7.2 showing Cockatoo Roosting and Breeding sites around the Offset sites
	If the above information is not provided, or if surveys determine risk of impact on significant terrestrial fauna species, Environmental Management Plans detailing the management and mitigation of impacts on significant terrestrial fauna should be prepared in accordance with <i>Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans</i> and submitted for assessment. This should include a commitment to avoid or minimise impacts to significant terrestrial fauna and consideration of offsets for any significant residual impacts to terrestrial fauna.	RFI	The Project Environmental Management Plan is provided as Appendix C.
Landforms	No further changes requested	-	N/A
GHG	GHG included as Key Environmental Factor and new calculations and GHG management plan provided for SIMCOA (including North Kiaka, Moora Mine and Kemerton) <ul style="list-style-type: none"> <li>Proponent will need to identify preliminary key environmental factors relevant to Kemerton Smelter and Moora Mine (i.e. greenhouse gas emissions,) – supporting information/studies will need to be suitable for the EPA to assess significance of impact.</li> <li>A Greenhouse Gas Management Plan prepared in accordance with EPA draft review of Greenhouse Gas Factor Guideline. <i>Environmental Factor Guideline – Greenhouse Gas Emissions</i>   EPA Western Australia</li> <li>EPA is not able to comment on future studies required until the revised Referral Information is assessed</li> </ul>	Meeting with EPA 16/09/2022	Section 5.8, Appendix U of the ERD
Air Quality	Air Quality included as Key Environmental Factor relevant to Kemerton Smelter and Moora Mine (supporting information/studies will need to be suitable for the EPA to assess significance of impact). Electronic copies of the Air Quality Modelling to be provided.	Meeting with EPA 16/09/2022	Section 5.9.

Key Environmental Factor	Additional Information	Source/Date	Section
Social Surroundings	Social Surroundings included as Key Environmental Factor relevant to Kemerton Smelter and Moora Mine (supporting information/studies will need to be suitable for the EPA to assess significance of impact) Kemerton and Moora sites included in the discussion, in addition to the Proposal	Meeting with EPA 16/09/2022	Section 5.7
TEQ	No additional information required	-	N/A
Inland Waters	No additional Information required	-	N/A
All	In addition, Existing conditions of MS 813 will be reviewed to make sure they are contemporary and updated to include conditions specific to the proposal (North Kiaka)	Meeting with EPA 16/09/2022	Table 12.3
All	Proponent should refer to EPA Guidance and Procedures for further information regarding information requirements for 'significant amendments to an approved proposal'.	Meeting with EPA 16/09/2022	Whole document

## 2023 Request for Further Information

EPA Factor / Source of request	Work/ Actions Required	Section in the ERD
Flora and Vegetation - Department of Water and Environmental Regulation (DWER) (also see comments from the Department of Biodiversity, Conservation and Attractions)	Provide information on the Priority flora targeted and whether “possibly occurring” significant flora species were targeted in the survey by Trudgen (2012, 2018).	Section 5.2 of the ERD updated to note that Threatened and Priority Flora were searched.
	Where data are not available, conduct a survey targeting threatened and priority species, as well as other significant species noted in the draft ERD. The additional targeted survey for flora and vegetation should be undertaken in accordance with <i>EPA Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment</i> .	Section 5.2 and Table 5.5 of the ERD note how the 2018 surveys were undertaken and that they were in line with the 2016 Technical Guidelines
	Provide current data for significant flora and analysis of direct, indirect, and cumulative impacts to flora and vegetation in a local and regional context. Revise the cumulative impact assessment to include analysis of existing and historical impacts, using current data.	Section 10 of the ERD has been updated to further describe the potential cumulative impact
	Provide information on the occurrence or avoidance of Moodjar trees within the DE.	Section 5.2 in the ERD and described in the Project EMP in Appendix C
	The EPA requires biodiversity survey reports and their underlying data to be submitted to the Index of Biodiversity Surveys for Assessments (IBSA). Biodiversity survey reports and data should be submitted to IBSA via IBSA Submission Form and the instruction for IBSA can be accessed via: Instructions for preparing data packages for the Index of Biodiversity Surveys for Assessments (IBSA). IBSA package should be submitted, and reference number received on submission should be provided. Any survey report and data that are revised after their initial acceptance into IBSA should be updated in IBSA and <a href="mailto:ibsa@dwer.wa.gov.au">ibsa@dwer.wa.gov.au</a> should be contacted for assistance in such cases.	-
Flora and Vegetation - Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Provide an updated flora and vegetation survey for the proposed proposal area. Specifically, provide an updated targeted assessment regarding impacts on the following MNES: Watheroo Wattle ( <i>Acacia aristulata</i> ) – Endangered Diels’ Daviesia ( <i>Daviesia dielsii</i> ) – Endangered	The ERD section 5.2 will be updated to reflect the survey information
	Provide an updated flora and vegetation survey that is consistent with <i>EPA Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment</i> (Western Australian EPA, 2016).	The ERD section 5.2 will be updated to reflect the updated figures and the survey effort and results will be included in Appendix G.
Terrestrial Fauna (Vertebrate) - DWER	Clarify if a search of the Great Cocky Count database was undertaken.	Section 5.5 of the ERD notes the source of the data (including the great cocky count information)
	Provide a clear map illustrating fauna habitats, the DE, and direct impact areas as the base layer, with survey and significant fauna locations.	Figure 5.18 in Section 5.5 of the ERD
Terrestrial Fauna (Vertebrate) - DCCEEW	Provide an updated fauna survey for the proposed proposal area. Specifically, provide an updated targeted assessment regarding impacts on the Carnaby’s Black Cockatoo ( <i>Zanda latirostris</i> listed as <i>Calyptorhynchus latirostris</i> ) – Endangered. A further targeted assessment for Black Cockatoos has been planned for April 2024 to collect information on the presence and quality of foraging vegetation. Although this is outside of season for the Moora	Section 5.5 of the ERD



EPA Factor / Source of request	Work/ Actions Required	Section in the ERD
	region, zoologists have confirmed that the foraging species can be readily identified and the evidence of usage by Black Cockatoos will still be evident at this time.	
	Ensure that the updated survey is consistent with the Survey Guidelines for Australia's Threatened Birds. EPBC Act survey guidelines 6.2 (Department of the Environment, Water, Heritage and the Arts (DEWHA), 2010).	Section 5.5 of the ERD
Terrestrial Fauna (Invertebrate) - DWER	If additional fauna surveys are undertaken, invertebrate specimens should be retained appropriately to confirm identification by persons with relevant expertise and using available techniques (e.g. genetic analysis).	-
	Quantify the impacts on potential and confirmed SRE habitat and provide a map of SRE taxa in relation to their preferred habitat.	Section 5.5.4.1.6 of the ERD Figure 5.19
	Discuss the significance of impacts to SRE habitat.	Section 5.5.7.1.3 of the ERD
Air Quality - DWER	Provide an updated air quality modelling assessment prepared in accordance with the Air quality modelling guidance notes 2006.	Section 5.9 of the ERD
	Include all dust emission sources from the Moora mine and all gaseous emissions from diesel generators in air quality modelling and assessment.	Section 5.9 of the ERD
	Provide information on dust composition for the Moora Mine operation, noting that crystalline silica dust may be produced due to the nature of the mined mineral.	Section 5.9 of the ERD
	Assess the potential cumulative impacts of the proposed operation, including existing emission sources from the Moora mine and background pollution levels, by incorporating these factors into the air quality modelling assessment	Section 5.9 of the ERD
	Assess the potential significance of dust composition for Moora Mine operation and consider additional measures to mitigate potential impacts on sensitive receptors, particularly those immediately adjacent to the DE.	Figure 5-26 in section 5.9 of the ERD
	Consider utilizing other regional data as a proxy or utilize global modelling data such as CAMS global reanalysis (EAC4) if local particle monitoring data is unavailable.	Section 5.9.5.2.1 of the ERD
	Provide additional evidence on the selection of representative year in the updated air quality assessment.	Section 5.9.5.2.1 of the ERD
Social Surroundings (Noise) – DWER	Provide the 2018 Moora Noise Survey report for review.	Appendix R of the ERD
	Provide an explanation for the higher LA10 noise levels observed at night.	Section 5.7 of the ERD
	Clearly demonstrate compliance with noise regulation at all times, including during the 6:00 am to 7:00 am period.	Section 5.7 of the ERD
	Conduct noise monitoring during the operation of the existing Moora site to verify the noise modelling for the proposed project and demonstrate compliance with noise regulations.	Section 5.7 of the ERD
Greenhouse Gas - DWER	The GHGMP should be updated and submitted for consideration as part of the assessment of this proposal. Guidance and instructions for the GHGMP can be accessed at: <i>Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans</i> .	Section 5.8 of the ERD
	Ensure that emission estimates and scopes align with the EP Act 'proposal' boundaries. Include NGER Act data to provide emission estimates, adapting them to meet EP Act requirements if there are difference between NGER Act and EP Act estimates or scopes.	Section 5.8 of the ERD

EPA Factor / Source of request	Work/ Actions Required	Section in the ERD
	Verify that GWP factors are consistent with the most recent NGER Act and IPCC publications. In the case of any discrepancies, estimates applying both factors should be provided.	Section 5.8 of the ERD
	Confirm the feasibility of an additional charcoal retort at the Kemerton Smelter expected to achieve 90 percent reduction in scope 1 emission and provide clear information regarding the feasibility of the assessment.	Section 5.8 of the ERD
	Provide the confidential benchmarking report for review. The proponent can request confidentiality for the benchmarking information/report if provided separately.	Section 5.8 of the ERD
	Conduct an independent expert review of best practices and design approaches focusing on emission sources, source data, calculation methodologies, emission baseline, review of best practice emissions reduction technologies (from implementation through operation), and relevant considerations and assumptions for GHG emissions throughout the project lifetime.	Section 5.8 of the ERD
	Clarify the mitigation measures for Scope 2 emissions, particularly in the event that SWIS does not meet its decarbonisation trajectory. In addition, provide additional information for addressing Scope 2 emissions uncertainty.	Section 5.8 of the ERD
Offsets - DCCEEW	Provide an offset strategy for the following protected matters, listed as Endangered under <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act): <ul style="list-style-type: none"> <li>– Carnaby's Black Cockatoo</li> <li>– Watheroo Wattle</li> <li>– Diels' Daviesia</li> </ul> Ensure that the proposed offset strategy is consistent with the <i>EPBC Act Environmental Offsets Policy</i> (Department of Sustainability Environment, Water, Population, and Communities, 2012). The offset strategy should be prepared in accordance with <i>Environmental offsets under the EPBC Act - DCCEEW and Offsets assessment guide - DCCEEW</i> .	Section 7 of the ERD and Appendix T
	Assess the potential need for an additional offset and take necessary steps to meet the requirements of the <i>EPBC Environmental Offsets Policy</i> (2012).	Section 7.3.4 of the ERD
	Provide evidence that the Cairn Hill site has approval from the legislating party (State government and/or Commonwealth government) to be removed as an offset component of the other project (EPA 1783) it was being used for to establish it as an offset component for the proposed action.	Section 7.2 of the ERD and Appendix T
Offsets – Department of Biodiversity, Conservation and Attractions (DBCA)	That once the proposed offset measures are determined by DWER to meet WA environmental offsets policy and guidelines, DBCA is provided with the opportunity to comment on possible conservation offset measures aimed at mitigating the residual impacts of the proposal on threatened flora, threatened fauna and TECs	No change required
Threatened Ecological Community (Coomberdale Chert Hills) - DBCA	Undertake further steps to avoid, minimise and mitigate potential impacts (direct and indirect) of the proposal on the Coomberdale Chert Hills Threatened Ecological Community (TEC).	Section 5.2 of the ERD
	Provide further information in the draft documentation on the monitoring of potential indirect impacts of the proposal on the Coomberdale Chert Hills TEC	Section 5.2 of the ERD
	Update the draft ERD to reflect the conservation status /ranking of the Coomberdale Chert Hills TEC as critically endangered.	Section 5.2 of the ERD
	Update the draft ERD to note the requirement for the proponent to seek Ministerial authorisation under section 45 of the BC Act for the modification of an occurrence of a TEC. Contact DBCA's Species and	Section 5.2 of the ERD

EPA Factor / Source of request	Work/ Actions Required	Section in the ERD
	Communities Program to discuss requirements under section 45 of the BC Act.	
	Clarify/update the inconsistency in the total area of native vegetation proposed for clearing. Clarify the reasons behind the misalignment between the total fauna habitat and area of vegetation to be cleared.	Section 5.2 of the ERD
Threatened Flora - DBCA	Provide additional targeted threatened flora surveys to inform a clear assessment of potential impacts (direct, indirect and cumulative) on threatened flora, at a local and regional scale.	Section 5.2 and Section 5.5 of the ERD
	Provide additional information in the draft ERD on the management and monitoring of potential impacts of the proposal on threatened flora.	Section 5.2 of the ERD
	Update draft ERD to note the requirement for the proponent to seek Ministerial authorisation under section 40 of the BC Act for the take of threatened flora.	Section 5.2 of the ERD
	Contact DBCA's Species and Communities Program to discuss requirements under section 40 of the BC Act.	
Priority Flora - DBCA	Undertake additional targeted survey to inform a clear assessment of potential impacts (direct, indirect and cumulative) on all priority flora, including an assessment of the number of known individuals, at both a local and regional scale.	Section 5.2 of the ERD
Threatened Fauna: Zanda latirostris (Carnaby's cockatoo)	Provide additional targeted surveys to inform a clear assessment of the potential impacts (direct, indirect and cumulative) on threatened fauna, at both a local and regional scale.	Figure 5.18 in Section 5.5 of the ERD
Threatened Short Range Endemics (SREs) - DBCA	Provide additional targeted surveys to determine the presence of Idiosoma species and assess any potential impacts on the species.	Section 5.5 of the ERD
Phytophthora dieback	Amend the draft ERD to provide a comprehensive Phytophthora dieback assessment, map and updated management plan.	Section 5.2 of the ERD
Other - DWER	Include the assessment number (2346) on the cover page.	Cover Page
	Include an invitation for the public to make a submission in the ERD. The invitation should be printed on different coloured paper. The ERD template can be accessed via Invitation to make a submission - ERD.	
	Provide a diagram of the links between environmental factors or values in the holistic impact assessment of the proposal on the environment	Section 9 of the ERD



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